

Thursday, July 28, 2011

REQUEST NUMBER: 11-2951

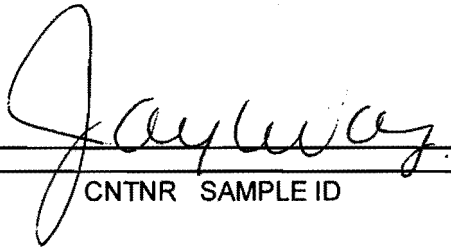
**LOS ALAMOS
NATIONAL LABORATORY**ATTN: Mike Rearick
Environmental Sciences Division

Los Alamos, NM 87545

Please analyse the enclosed samples
according to the schedule indicated:**SHIP DATE: 7/28/2011****TURNAROUND/REPORT DUE: 8/27/2011****TURNAROUND REQ'D: 30 Days****RAD SCREENING: Not Required****LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Deuterium Ratio	1	CAPA-11-22871	WG	7/27/2011	
		2	CAPA-11-22871	WG	7/27/2011	
		1	CAPA-11-22876	WG	7/27/2011	
		2	CAPA-11-22876	WG	7/27/2011	
	Generic:Nitrogen Isotope Ratio	1	CAPA-11-22872	WG	7/27/2011	
		2	CAPA-11-22872	WG	7/27/2011	
		1	CAPA-11-22875	WG	7/27/2011	
		2	CAPA-11-22875	WG	7/27/2011	

NO DATA
Reviewed
JLW
11/30/13

Thursday, July 28, 2011

REQUEST NUMBER: 11-2951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Oxygen Isotope Ratio	1	CAPA-11-22871	WG	7/27/2011	
		2	CAPA-11-22871	WG	7/27/2011	
		1	CAPA-11-22876	WG	7/27/2011	
		2	CAPA-11-22876	WG	7/27/2011	

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Thursday, July 28, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-2951C

LOS ALAMOS

REQUEST NUMBER: 11-2951

NATIONAL LABORATORY

ATTN: Mike Rearick

Environmental Sciences Division

TURNAROUND/REPORT DUE: 8/27/2011

TURNAROUND REQ'D: 30

Los Alamos, NM 87545

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-11-22871	1	SEPTUM AMBER GLASS	WSP-D2H+O18O16	Ice	WG
CAPA-11-22871	2	SEPTUM AMBER GLASS	WSP-D2H+O18O16	Ice	WG
CAPA-11-22876	1	SEPTUM AMBER GLASS	WSP-D2H+O18O16	Ice	WG
CAPA-11-22876	2	SEPTUM AMBER GLASS	WSP-D2H+O18O16	Ice	WG
CAPA-11-22872	1	SEPTUM AMBER GLASS	WSP-N14N15	Ice	WG
CAPA-11-22872	2	SEPTUM AMBER GLASS	WSP-N14N15	Ice	WG
CAPA-11-22875	1	SEPTUM AMBER GLASS	WSP-N14N15	Ice	WG
CAPA-11-22875	2	SEPTUM AMBER GLASS	WSP-N14N15	Ice	WG

Relinquished By:

Date

Time

Received By:

Date

Time

Signature

Signature

Signature

Signature

Signature

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22871

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		7/27/11		MEDIA: WGR		OK	
TIME COLLECTED (HH:MM)		1412		SUB-MEDIA: UA			
PRS ID:	Pajarito	OK		SAMPLE TECH CODE: 6 JP			
LOCATION ID:	R-17			FIELD QC TYPE: NA			
LOCATION TYPE:	MON			FIELD PREP: UF			
PORT:	PIA			SAMPLE USAGE: INV			
				SCREEN/PORT DESC: NA			
FIELD MATRIX: WG				EXCAVATED: YES/NO (NA)			
COMPOSITE TYPE: NA				COMPOSITE TIME INTERVAL: 1A		WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO (NA)		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	NA	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	NA
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (H2SO4)	Y	
1		WSP-EES6-ALK	125 ML POLY	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
2	NA	WSP-D2H+O18O 16	40 ML SEPTUM AMBER GLASS	Ice	Y	Y

SAMPLE DESC: Collected within 50 ft of diesel generator

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

p^H 7.45 Temp^{oc} 22.07 SCUS^{cm} 130 DO^{mg/L} 7.55 Turb^{NTU} 0.81 GRP^{mg/L} 123.1 G^{gph} 2.2

COLLECTED BY (PRINT) N. Walls

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY (Printed Name) M. Green (Signature) <i>M. Green</i>	Date/Time 7/27/11 1515	RECEIVED BY (Printed Name) Sheri Greenwood (Signature) <i>Sheri Greenwood</i>	Date/Time 7/27/11 1515
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22872

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		7/27/11		MEDIA:	WGR		OK
TIME COLLECTED (HH:MM)		1412		SUB-MEDIA:	UA		
PRS ID:	Pajarito	OK		SAMPLE TECH CODE:	68P		
LOCATION ID:	R-17			FIELD QC TYPE:	NA		
LOCATION TYPE:	MON			FIELD PREP:	E		
PORT:	PIA			SAMPLE USAGE:	INV		
				SCREEN/PORT DESC:			
FIELD MATRIX:	WG			EXCAVATED: YES/NO/NA	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA	NA		
BOREHOLE: YES/NO/NA	NA			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	NA	WSP-GENINORG	1 LITER POLY	Ice	Y	NA
1	J	WSP-NH3+NO3/ NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (H2SO4)	Y	J
2	J	WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	J

SAMPLE DESC:

See CAPA-11-22871

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) N. Wals

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY (Printed Name) M. Green (Signature) [Signature]	Date/Time 7/27/11 1515	RECEIVED BY (Printed Name) Stephen Sherwood (Signature) [Signature]	Date/Time 7/27/11 1515
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22873

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		7/27/11		MEDIA:	WGR		OK
TIME COLLECTED (HH:MM)		1412		SUB-MEDIA:	UA		
PRS ID:	Pajarito	OK		SAMPLE TECH CODE:	NA		
LOCATION ID:	R-17			FIELD QC TYPE:	ETB		
LOCATION TYPE:	MON			FIELD PREP:	UF		
PORT:	PIA			SAMPLE USAGE:	QC		
				SCREEN/PORT DESC:	NA		
FIELD MATRIX:	WG			EXCAVATED: YES/NO/NA	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA	NA		
BOREHOLE: YES/NO/NA	NA			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	NA	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	NA

SAMPLE DESC: QC Sample of CAPA-11-22871

See CAPA-11-22871

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) H. WallsREVIEWED BY (PRINT) m. gre

RELINQUISHED BY (Printed Name) <u>m. gre</u> (Signature) <u>[Signature]</u>	Date/Time <u>7/27/11</u> <u>1515</u>	RECEIVED BY (Printed Name) <u>Sherrill Woodward</u> (Signature) <u>[Signature]</u>	Date/Time <u>7/27/11</u> <u>1515</u>
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22874

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		7/27/11	MEDIA:	WGR	GK
TIME COLLECTED (HH:MM)		1224	SUB-MEDIA:	UA	
PRS ID:	Pajarito	ok	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-17		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UE	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:	UA	
FIELD MATRIX:	WG		EXCAVATED: YES/NO/NA	NA	
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA	NA	
BOREHOLE: YES/NO/NA	NA		BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	NA	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	NA

SAMPLE DESC: QC Sample of CAPA-11-22876

see CAPA-11-22876

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) N. Wals

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY (Printed Name) M. Green (Signature) [Signature]	Date/Time 7/27/11 1515	RECEIVED BY (Printed Name) Steven Greenwood (Signature) [Signature]	Date/Time 7/27/11 1515
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22875

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		7/27/11	MEDIA:	WGR	6k
TIME COLLECTED (HH:MM)		1224	SUB-MEDIA:	UA	
PRS ID:	Pajarito	OK	SAMPLE TECH CODE:	6SP	
LOCATION ID:	R-17		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	E	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:	AA	
FIELD MATRIX:	WG		EXCAVATED: YES/NO/NA	NA	
COMPOSITE TYPE:	hp		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA	NA	
BOREHOLE: YES/NO/NA	NA		BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	NA	WSP-GENINORG	1 LITER POLY	Ice	Y	NA
1		WSP-NH3+NO3/ NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (H2SO4)	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

see CAPA-11-22876

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) N. Walls

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY (Printed Name) m. green (Signature) [Signature]	Date/Time 7/27/11 1515	RECEIVED BY (Printed Name) STEPHEN SHERWOOD (Signature) [Signature]	Date/Time 7/27/11 1515
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3510

EVENT NAME: Pajarito Watershed Sampling Q5, July 2011, IFWGMP 2010

SAMPLE ID: CAPA-11-22876

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		7/27/11		MEDIA:		WGR	
TIME COLLECTED (HH:MM)		1224		SUB-MEDIA:		UA	
PRS ID: Pajarito		OK		SAMPLE TECH CODE:		6SP	
LOCATION ID: R-17				FIELD QC TYPE:		NA	
LOCATION TYPE: MON				FIELD PREP:		UF	
PORT: P2A				SAMPLE USAGE:		INV	
FIELD MATRIX: WG				SCREEN/PORT DESC:		NA	
COMPOSITE TYPE: NA				EXCAVATED: YES/NO/NA		NA	
COMPOSITE TIME INTERVAL: NA				WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		NA		BOREHOLE DECLINATION: NA		NA	
BOREHOLE DIRECTION: NA							

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	NA	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	NA
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (H2SO4)	Y	
1		WSP-EES6-ALK	125 ML POLY	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
2		WSP-D2H+O18O 16	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: Samples collected within 50 ft of diesel generator

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

pH $\text{Temp}^{\circ}\text{C}$ SC us/cm DO mg/L Turb NTU ORP mV Q gpm
 7.97 22.03 122 6.45 0.35 12.2 2.3

COLLECTED BY (PRINT) N. Wals

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY (Printed Name) m. green (Signature) <i>[Signature]</i>	Date/Time 7/27/11 1315 KIS	RECEIVED BY (Printed Name) <i>[Signature]</i> (Signature) <i>[Signature]</i>	Date/Time 7/27/11 1815
RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time

Los Alamos National Laboratory

EES-14 Hydrology, Geochemistry, and Geology Laboratory

MS-D469, Building 494, Los Alamos, NM. 87545

REQUES	LAB_SAMPLE_ID	LAB_RECEIPT_D	ANALYSIS_METHOD	ANALYTE_COD	RESULT	UNCERTAINTY	QC_TYPE	ANALYSIS_DA
11-2951	CAPA-11-22871	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16	-10.9135		CS	23-Aug-2011
11-2951	CAPA-11-22871	10-Aug-2011	Generic:Deuterium Ratio	DELTAH-2	-78.0376		CS	26-Aug-2011
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16-NO3	-10.9076		DUP	05-Feb-2013
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16-NO3	-11.7016		CS	05-Feb-2013
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16-NO3	-11.6755		LCS	30-Jan-2013
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Nitrogen Isotope Ratio	N15N14	-1.20465		DUP	05-Feb-2013
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Nitrogen Isotope Ratio	N15N14	-1.21630		CS	05-Feb-2013
11-2951	CAPA-11-22872	10-Aug-2011	Generic:Nitrogen Isotope Ratio	N15N14	-0.79213		LCS	30-Jan-2013
11-2951	CAPA-11-22875	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16-NO3	-6.36058		CS	07-Feb-2012
11-2951	CAPA-11-22875	10-Aug-2011	Generic:Nitrogen Isotope Ratio	N15N14	3.037443		CS	07-Feb-2012
11-2951	CAPA-11-22876	10-Aug-2011	Generic:Oxygen Isotope Ratio	O18O16	-11.2025		CS	23-Aug-2011
11-2951	CAPA-11-22876	10-Aug-2011	Generic:Deuterium Ratio	DELTAH-2	-78.1068		CS	26-Aug-2011

Nitrate calibrated data

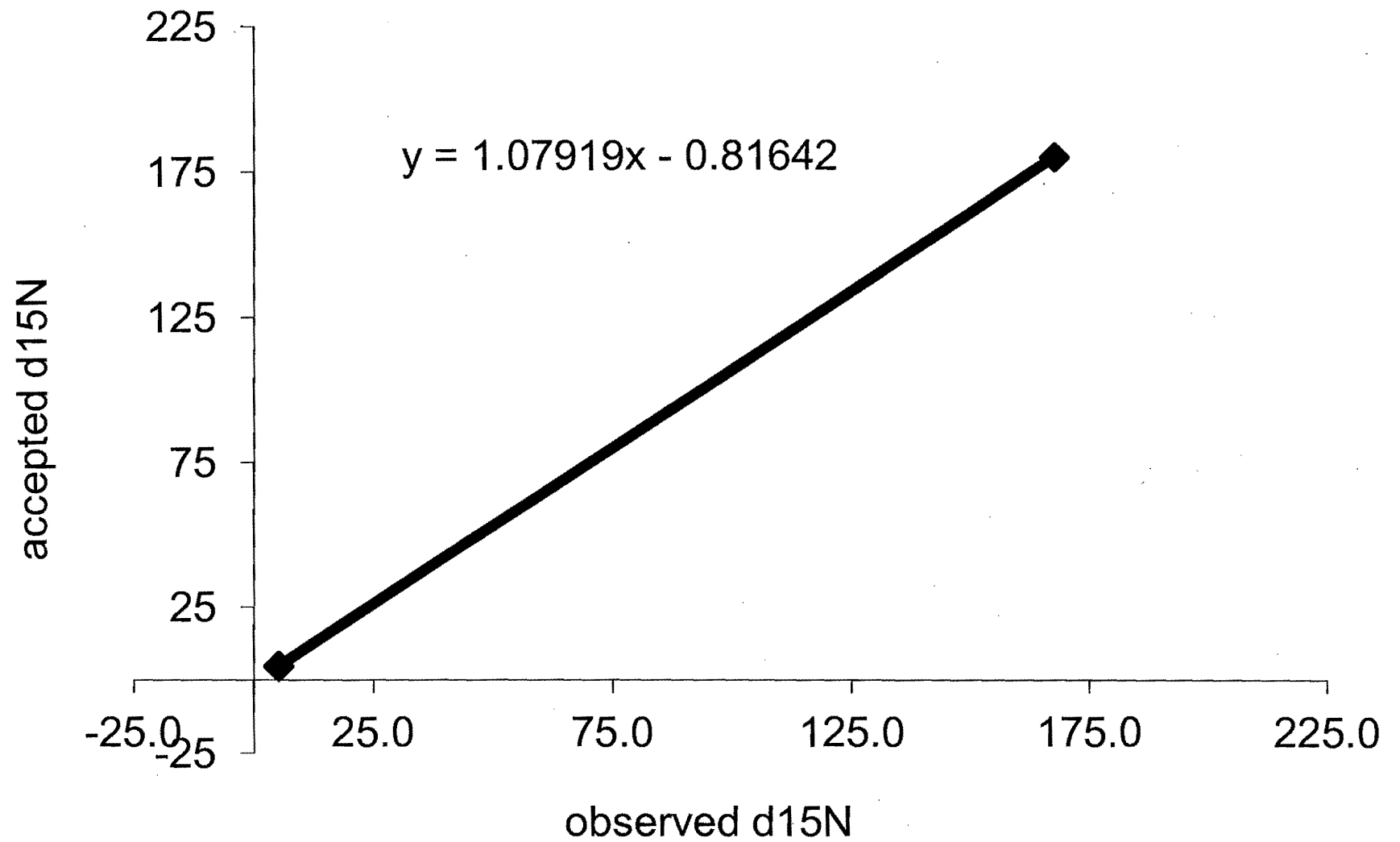
Date analyzed: 2/5/2013
 Operator: George Perkins
 Isoprime data file: Nitrate Bugs 2/5/2013

Generation of calibration		$\delta^{15}\text{N}$ Value		$\delta^{18}\text{O}$	$\delta^{18}\text{O}$	$\delta^{17}\text{O}$
		actual	obs	actual	measured	actual
KNO ₃	USGS35	2.7		57.5		51.5
KNO ₃	USGS32	180.0	167.55	25.7		
KNO ₃	IAEA-NO3	4.7	5.11	25.6	39.02	
KNO ₃	USGS34	-1.8		-27.9	-6.96	405.70
slope						b-int.
$\delta^{18}\text{O}= 1.1635$						-19.80
$\delta^{15}\text{N}= 1.07919$						-0.82
N-linearity		0.0000				
O-linearity		0.0000				

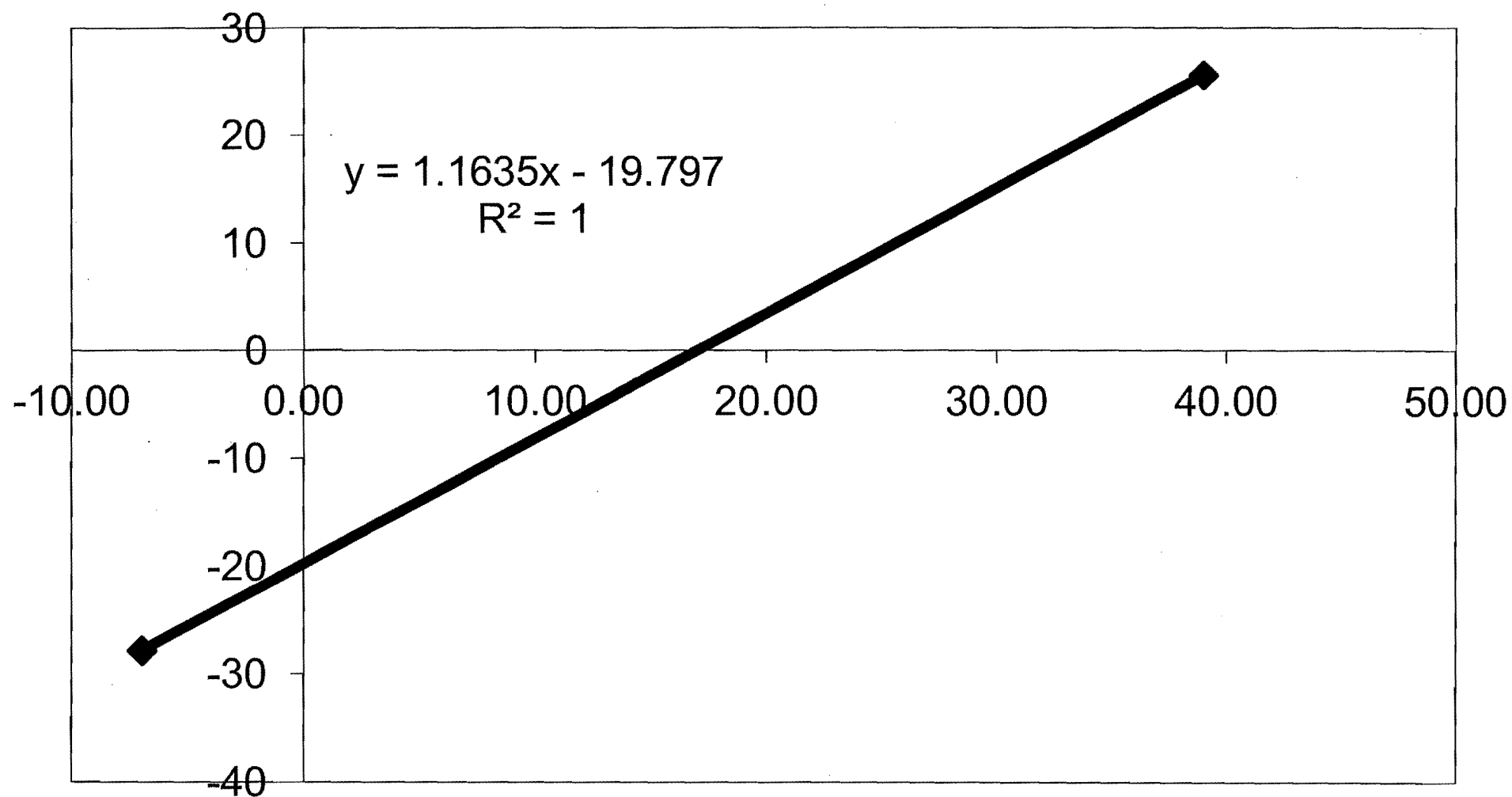
Sample #	Sample Name	RT	Pk Ht	Raw d15N	Raw d18O	Corr d15N	Corr d18O	corr. d15N	corr. d18O	Comment
2	air-1 2-5-2013.raw	263.6	0.29	21.03	63.55	21.87	54.14	21.87	54.14	
3	IAEA-NO3-1 2-5-2013.raw	264.8	7.25	5.05	39.27	4.63	25.89	4.63	25.89	
4	IAEA-NO3-2 2-5-2013.raw	264.4	7.40	5.00	38.42	4.58	24.91	4.58	24.91	
5	USGS32-1 2-5-2013.raw	263.6	8.45	167.67	42.76	180.13	29.96	180.13	29.96	
6	USGS34-1 2-5-2013.raw	266.4	7.46	-2.09	-7.37	-3.07	-28.37	-3.07	-28.37	
7	CAPA-11-22872 2 2-5-2013.raw	266.0	13.88	-0.36	7.64	-1.20	-10.91	-1.20	-10.91	
8	CAPA-11-22872 1 2-5-2013.raw	264.5	14.30	-0.37	6.96	-1.22	-11.70	-1.22	-11.70	
9	CASA-12-14081 1 2-5-2013.raw	262.5	6.26	4.37	15.39	3.90	-1.89	3.90	-1.89	
10	CASA-12-14081 2 2-5-2013.raw	262.0	6.35	4.53	15.55	4.07	-1.71	4.07	-1.71	
11	CASA-12-14082 1 2-5-2013.raw	260.7	9.37	4.21	13.45	3.73	-4.14	3.73	-4.14	
12	IAEA-NO3-3 2-5-2013.raw	260.0	8.58	4.94	38.62	4.51	25.13	4.51	25.13	
13	Blank 2-5-2013.raw	262.8	0.05	62.72	145.45	66.87	149.43	66.87	149.43	
14	CASA-12-14082 2 2-5-2013.raw	258.2	8.59	4.09	13.61	3.60	-3.97	3.60	-3.97	
15	NGEE-01 2-5-2013.raw	257.1	5.58	-6.35	13.31	-7.67	-4.31	-7.67	-4.31	
16	NGEE-02 2-5-2013.raw	255.7	5.76	-3.96	9.45	-5.09	-8.80	-5.09	-8.80	
17	NGEE-03 2-5-2013.raw	255.3	8.76	-30.09	12.85	-33.29	-4.84	-33.29	-4.84	
18	IAEA-NO3-4 2-5-2013.raw	264.4	6.88	5.31	39.20	4.91	25.82	4.91	25.82	
19	NGEE-05 2-5-2013.raw	244.9	0.26	356.10	486.48	383.48	546.22	383.48	546.22	

20	NGEE-06 2-5-2013.raw	242.3	0.24		405.70	786.89	437.01	895.75	437.01	895.75	
21	NGEE-02 dup 2-5-2013.raw	261.1	6.20		-3.94	9.35	-5.07	-8.92	-5.07	-8.92	
22	CAPA-12-13477 lcs 1 2-5-2013.raw	260.0	6.57		7.26	15.53	7.01	-1.72	7.01	-1.72	
23	USGS32-2 2-5-2013.raw	259.8	7.69		167.43	41.52	179.87	28.52	179.87	28.52	
24	IAEA-NO3-5 2-5-2013.raw	259.9	7.68		5.26	39.58	4.86	26.25	4.86	26.25	
25	Malink-1 2-5-2013.raw	254.5	7.34		2.70	32.41	2.09	17.91	2.09	17.91	
26	USGS34-2 2-5-2013.raw	258.9	7.15		-1.99	-6.56	-2.96	-27.43	-2.96	-27.43	
							4.70	25.60	4.70	25.60	
							0.18	0.56	0.18	0.56	

d15N calibration



d18O Calibration



Stable Isotope Analysis

Batch Results Sheet, N2O



Batch start: 5/2/13 9:53

Project: Trace Gas Nitrates.PRO

Batch end: 5/2/13 20:54

Blank Subtracted: FALSE

Temp Correction: None

Calculated Using Standards: FALSE

EC Calculated Using Aux. Detector: TRUE

Analysis results

Sample Number	Name	Acquisition date	RT (Sec)	Height (nA)	Type	Weight (mg)	Sample Description	15N	18O		
2	air-1 2-5-2013.raw	5/2/13 10:13	244.2	0.09		0.00		516.60	996.98		
			263.6	0.29				21.03	63.55		
3	IAEA-NO3-1 2-5-2013.raw	5/2/13 10:40	264.8	7.25		0.00		5.05	39.27		
4	IAEA-NO3-2 2-5-2013.raw	5/2/13 11:06	264.4	7.40		0.00		5.00	38.42		
5	USGS32-1 2-5-2013.raw	5/2/13 11:32	263.6	8.45		0.00		167.67	42.76		
6	USGS34-1 2-5-2013.raw	5/2/13 11:59	266.4	7.46		0.00		-2.09	-7.37		
7	PA-11-22872 2 2-5-2013.r	5/2/13 12:25	266.0	13.88		0.00		-0.36	7.64		
8	PA-11-22872 1 2-5-2013.r	5/2/13 12:52	264.5	14.30		0.00		-0.37	6.96		
9	SA-12-14081 1 2-5-2013.r	5/2/13 13:18	262.5	6.26	Iso	0.00		4.37	15.39		
10	SA-12-14081 2 2-5-2013.r	5/2/13 13:45	262.0	6.35	Iso	0.00		4.53	15.55		
11	SA-12-14082 1 2-5-2013.r	5/2/13 14:11	260.7	9.37	Iso	0.00		4.21	13.45		
12	IAEA-NO3-3 2-5-2013.raw	5/2/13 14:37	260.0	8.58	Iso	0.00		4.94	38.62		
13	Blank 2-5-2013.raw	5/2/13 15:04	240.7	0.12	Iso	0.00		510.33	991.56		
			262.8	0.05				62.72	145.45		
14	SA-12-14082 2 2-5-2013.r	5/2/13 15:30	258.2	8.59	Iso	0.00		4.09	13.61		
15	NGEE-01 2-5-2013.raw	5/2/13 15:57	234.2	0.23	Iso	0.00		515.60	998.45		
			257.1	5.58				-6.35	13.31		
16	NGEE-02 2-5-2013.raw	5/2/13 16:23	255.7	5.76	Iso	0.00		-3.96	9.45		
17	NGEE-03 2-5-2013.raw	5/2/13 16:50	255.3	8.76	Iso	0.00		-30.09	12.85		
18	IAEA-NO3-4 2-5-2013.raw	5/2/13 17:16	264.4	6.88	Iso	0.00		5.31	39.20		
19	NGEE-05 2-5-2013.raw	5/2/13 17:42	244.9	0.26	Iso	0.00		356.10	486.48		
20	NGEE-06 2-5-2013.raw	5/2/13 18:09	242.3	0.24	Iso	0.00		405.70	786.89		
21	NGEE-02 dup 2-5-2013.rav	5/2/13 18:35	261.1	6.20	Iso	0.00		-3.94	9.35		
22	A-12-13477 lcs 1 2-5-2013	5/2/13 19:02	260.0	6.57	Iso	0.00		7.26	15.53		
23	USGS32-2 2-5-2013.raw	5/2/13 19:28	259.8	7.69	Iso	0.00		167.43	41.52		
24	IAEA-NO3-5 2-5-2013.raw	5/2/13 19:55	259.9	7.68	Iso	0.00		5.26	39.58		
25	Malink-1 2-5-2013.raw	5/2/13 20:21	254.5	7.34	Iso	0.00		2.70	32.41		
26	USGS34-2 2-5-2013.raw	5/2/13 20:48	258.9	7.15	Iso	0.00		-1.99	-6.56		

Bugs nitrate run log

2-5-2013

Vial #	Sample	temp ID	conc.	volume (ul)
1	air-1		0.00	n/a
2	IAEA-NO3-1		9.94	323
3	IAEA-NO3-2		9.94	323
4	USGS32-1		10.22	314
5	USGS34-1		10.11	318
6	FA05	CAPA-11-22872	2	0.85 3783
7	FA05	CAPA-11-22872	1	0.85 3783
8	FD05	CASA-12-14081	1	30.467 105
9	FD06	CASA-12-14081	2	30.467 105
10	FD07	CASA-12-14082	1	3.553 904
11	IAEA-NO3-3		9.94	323
12	Blank		0.00	#DIV/0!
13	FD08	CASA-12-14082	2	3.553 904
14	ANR1		0.40	8012
15	NGEE-01		19.68	163
16	NGEE-02		20.25	159
17	NGEE-03		0.56	5751
18	IAEA-NO3-4		9.94	323
19	NGEE-05		1.18	2723
20	NGEE-06		0.37	8610
21	ANR1 ?NGEE2		0.40	8012
22	FD09	CAPA-12-13477 lcs	1	16.733 192
23	USGS32-2		10.22	314
24	IAEA-NO3-5		9.94	323
25	Malink-1		10.34	311
26	USGS34-2		10.11	318

Stable Isotope CF Analysis Results



File: N2O Linearity 2-05-2013 raw
Project: Trace Gas Nitrates PRO
Sample list: Ref gas stability template.spl
Line: 3
MS file: N2O ref gas stability
Inlet: Trace Gas
Inlet file: Ref Gas Stability
Sample ID:
Description:

Acquisition Date: 5/2/13 9:42
Weight: 0.00
Injection Volume: 0
Bottle: 2
Type:
Standard:
Slot Number: JB118
Run Index:

Reference standard	Corrections
Species: N2O by CF (uncalibrated) Gas: N2O Uncalibrated N2O Ratio type: Molecular Deconvolution: No deconvolution Elemental ratio: Molecular delta Label: Label: Value: wrt: Ratio 1: 15N delta 45 2.50 Air Ratio 2: 18O delta 46 25.00 SMOW	Equilibrium correction: None

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	1.70		7.8919E-03	2.0572E-03
2	2.69		7.8932E-03	2.0567E-03
3	2.68		7.8909E-03	2.0555E-03
5	2.68		7.8929E-03	2.0566E-03
6	3.96		7.8928E-03	2.0558E-03
7	3.93		7.8922E-03	2.0557E-03
8	5.14		7.8917E-03	2.0550E-03
9	5.11		7.8917E-03	2.0548E-03
10	6.40		7.8911E-03	2.0540E-03
11	7.60		7.8905E-03	2.0531E-03

Std Dev (nA): 7.8919E-03 2.0554E-03
Std Dev (RT) (%): 0.11 0.24

Sample Data

Peak	RT (Sec)	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
1	19.17	7.8902E-03	342.85	346.21	3.5879E-03	745.31	788.94

Stable Isotope CF Analysis Results



File: N2O Stability 2-05-2013.raw
Project: Trace Gas Nitrates.PRO
Sample list: Ref gas stability template.spl
Line: 4
MS file: N2O ref gas stability
Inlet: Trace Gas
Inlet file: Ref Gas Stability
Sample ID:
Description:

Acquisition Date: 5/2/13 9:22
Weight: 0.00
Injection Volume: 0
Bottle: 3
Type:
Standard:
Slot Number: JB118
Run Index:

Reference standard				Corrections	
Species: N2O by CF (uncalibrated)				Equilibrium correction: None	
Gas: N2O					
Ratio type: Molecular					
Deconvolution: No deconvolution					
Elemental delta		Molecular delta			
Label:	Value:	Label:	Value:	wrt:	
Ratio 1: 15N		delta 45	2.50	Air	
Ratio 2: 18O		delta 46	25.00	SMOW	

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	5.42	2.1	7.8991E-03	2.0562E-03
2	5.40	2.3	7.8988E-03	2.0557E-03
3	5.38	1.4	7.8980E-03	2.0559E-03
4	5.36	2.3	7.8977E-03	2.0557E-03
5	5.35	1.4	7.8969E-03	2.0555E-03
6	5.33	2.3	7.8963E-03	2.0554E-03
7	5.32	2.3	7.8961E-03	2.0554E-03
8	5.31	4.3	7.8961E-03	2.0553E-03
9	5.29	2.3	7.8961E-03	2.0552E-03
10	5.27	2.3	7.8961E-03	2.0551E-03

Std Dev of 50 (%): 0.02 0.04

Sample Data

Peak No	RT (Sec)	Major Area	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
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Nitrate calibrated data

Date analyzed: 1/30/2013
 Operator: George Perkins
 Isoprime data file: Nitrate Bugs 1/31/2013

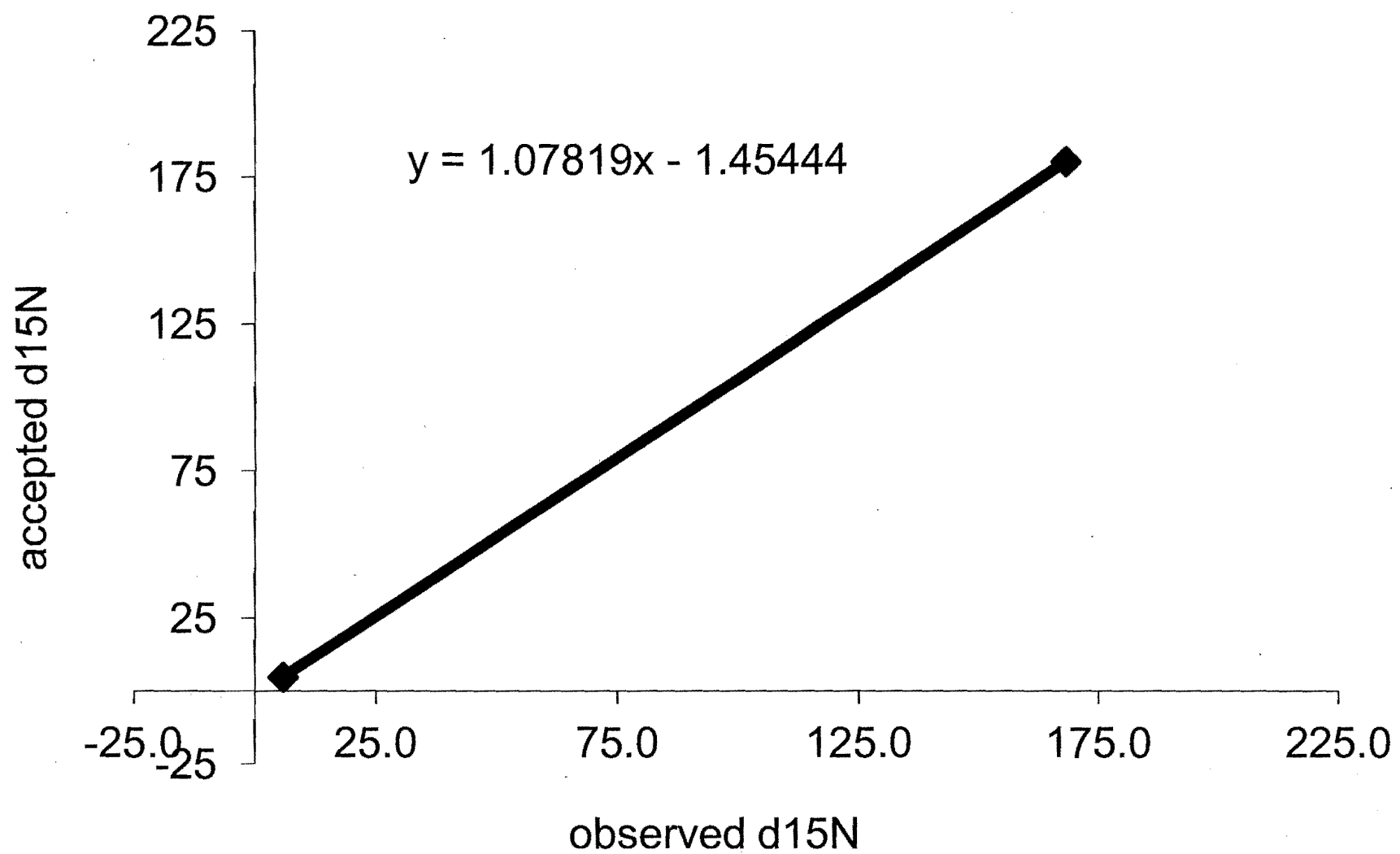
Generation of calibration		$\delta^{15}\text{N}$ Value		$\delta^{18}\text{O}$	$\delta^{18}\text{O}$	$\delta^{17}\text{O}$
		actual	obs	actual	measured	actual
KNO ₃	USGS35	2.7		57.5		51.5
KNO ₃	USGS32	180.0	168.30	25.7		
KNO ₃	IAEA-NO3	4.7	5.71	25.6	39.51	
KNO ₃	USGS34	-1.8		-27.9	-3.87	5.66
slope						b-int.
$\delta^{18}\text{O}= 1.2332$						-23.13
$\delta^{15}\text{N}= 1.07819$						-1.45
N-linearity		0.0000				
O-linearity		0.0000				

Sample #	Sample Name	RT	Pk Ht	Raw d15N	Raw d18O	Corr d15N	Corr d18O	corr. d15N	corr. d18O	Comment
2	IAEA-NO3-1 1-30-2013.raw	256.2	8.39	5.78	39.54	4.77	25.63	4.77	25.63	
3	IAEA-NO3-2 1-30-2013.raw	254.3	8.29	5.68	39.13	4.67	25.13	4.67	25.13	
4	USGS32-1 1-30-2013.raw	253.1	8.44	168.24	42.22	179.94	28.94	179.94	28.94	
5	USGS34-1 1-30-2013.raw	261.0	7.70	0.00	-3.87	-1.46	-27.90	-1.46	-27.90	
6	CASA-13-24374 1 1-30-2013.raw	259.3	10.06	5.37	15.68	4.34	-3.79	4.34	-3.79	
7	CASA-13-24374 2 1-30-2013.raw	258.2	9.10	5.89	15.79	4.89	-3.66	4.89	-3.66	
8	CASA-13-24373 1 1-30-2013.raw	256.6	6.51	7.05	18.76	6.15	0.01	6.15	0.01	
9	CASA-13-24373 2 1-30-2013.raw	256.7	7.04	6.66	17.50	5.73	-1.54	5.73	-1.54	
10	CAMO-13-24370 1 1-30-2013.raw	256.4	9.50	10.12	15.73	9.45	-3.73	9.45	-3.73	
11	CAMO-13-24370 2 1-30-2013.raw	256.6	11.49	10.32	16.01	9.68	-3.39	9.68	-3.39	
12	IAEA-NO3-3 1-30-2013.raw	255.6	8.05	6.72	41.33	5.79	27.84	5.79	27.84	
13	Blank 1-30-2013.raw	257.9	0.07	60.53	138.43	63.81	147.59	63.81	147.59	
14	CAPA-12-13478 1 1-30-2013.raw	253.8	6.37	7.97	15.60	7.13	-3.89	7.13	-3.89	
15	CAPA-12-13478 2 1-30-2013.raw	253.5	5.78	8.06	15.99	7.23	-3.41	7.23	-3.41	
16	CAPA-12-13479 1 1-30-2013.raw	253.5	5.75	8.14	15.82	7.32	-3.62	7.32	-3.62	
17	CAPA-12-13479 2 1-30-2013.raw	264.4	5.44	8.63	16.99	7.85	-2.17	7.85	-2.17	
18	CAMO-12-22328 1 1-30-2013.raw	263.3	6.41	10.55	18.26	9.92	-0.62	9.92	-0.62	
19	CAMO-12-22328 2 1-30-2013.raw	256.9	8.05	10.47	16.95	9.83	-2.22	9.83	-2.22	

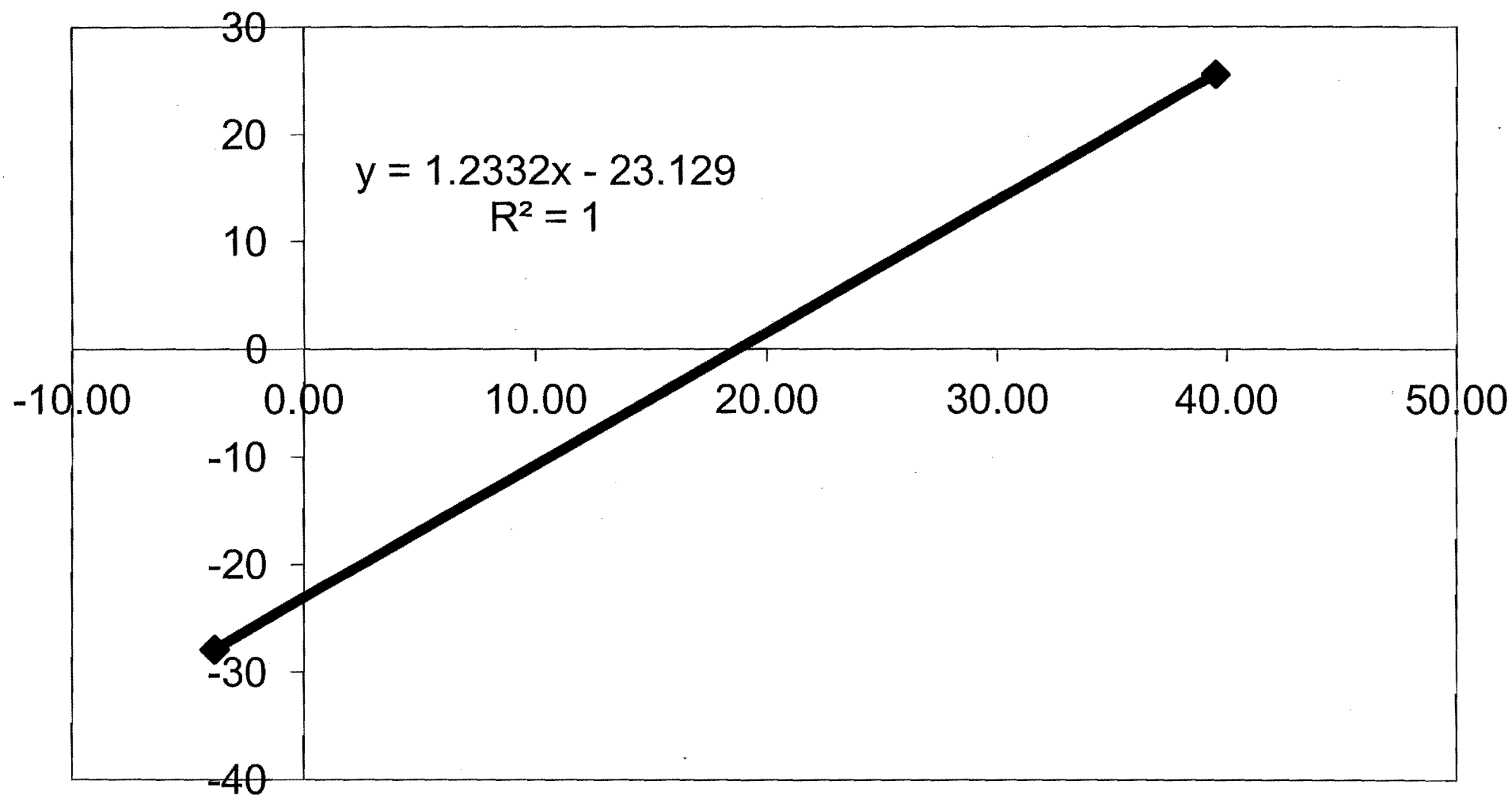
20	IAEA-NO3-4 1-30-2013.raw	261.5	7.44		5.66	39.87	4.65	26.04	4.65	26.04	
21	CAMO-12-14078 1 1-30-2013.raw	255.4	7.28		10.32	17.10	9.67	-2.04	9.67	-2.04	
22	CAMO-12-14078 2 1-30-2013.raw	257.6	7.01		10.44	17.09	9.80	-2.06	9.80	-2.06	
23	CAPA-12-13477 1 1-30-2013.raw	258.5	6.61		8.46	16.47	7.66	-2.81	7.66	-2.81	
24	CAPA-12-13477 2 1-30-2013.raw	259.0	5.89		8.44	16.71	7.64	-2.52	7.64	-2.52	
25	CAPA-11-22872 lcs 2 1-30-2013.raw	258.0	13.08		0.61	9.29	-0.79	-11.68	-0.79	-11.68	
26	USGS32-2 1-30-2013.raw	256.3	9.07		168.35	42.00	180.06	28.66	180.06	28.66	
27	IAEA-NO3-5 1-30-2013.raw	262.3	0.27		21.44	70.70	21.66	64.06	21.66	64.06	
28	Malink-1 1-30-2013.raw	260.5	7.36		3.40	32.19	2.21	16.57	2.21	16.57	
29	USGS34-2 1-30-2013.raw	259.2	6.87		-0.79	-4.94					

4.70 25.60 4.70 25.60
0.06 0.45 0.06 0.45

d15N calibration



d18O Calibration



Stable Isotope CF Analysis Results



File: N2O Stability 1-29-2012.raw Acquisition Date: 29/1/13 8:59
 Project: Trace Gas Nitrates.PRO Weight: 0.00
 Sample list: Ref gas stability template.spl Injection Volume: 0
 Line: 3 Bottle: 2
 MS file: N2O ref gas stability Type:
 Inlet: Trace Gas Standard:
 Inlet file: Ref Gas Stability Slot Number: JB118
 Sample ID: Run Index:
 Description:

Reference standard	Corrections
Species: N2O by CF (uncalibrated) Gas: N2O Uncalibrated N2O Ratio type: Molecular Deconvolution: No deconvolution Elemental delta Label: Value: Molecular delta Ratio 1: 15N Label: Value: wrt: Ratio 2: 18O delta 45 2.50 Air delta 46 25.00 SMOW	Equilibrium correction: None

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	7.03	29.4	7.9450E-03	2.0565E-03
2	7.02	89.4	7.9408E-03	2.0564E-03
3	7.00	149.4	7.9373E-03	2.0564E-03
4	6.99	209.4	7.9340E-03	2.0564E-03
5	6.98	269.4	7.9308E-03	2.0564E-03
6	6.96	329.4	7.9282E-03	2.0564E-03
7	6.95	389.4	7.9255E-03	2.0563E-03
8	6.94	449.4	7.9231E-03	2.0561E-03
9	6.93	509.4	7.9211E-03	2.0561E-03
10	6.92	569.4	7.9191E-03	2.0562E-03

Mean: 7.9305E-03 2.0563E-03
 Std Dev of fit (%): 0.13 0.04

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
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Stable Isotope CF Analysis Results



File: N2O Linearity 1-29-2012.raw
Project: Trace Gas Nitrates.PRO
Sample list: Ref gas stability template.spl
Line: 3
MS file: N2O ref gas stability
Inlet: Trace Gas
Inlet file: Ref Gas Stability
Sample ID:
Description:

Acquisition Date: 29/1/13 9:21
Weight: 0.00
Injection Volume: 0
Bottle: 2
Type:
Standard:
Slot Number: JB118
Run Index:

Reference standard	Corrections
Species: N2O by CF (uncalibrated) Gas: N2O Uncalibrated N2O Ratio type: Molecular Deconvolution: No deconvolution Elemental delta Label: Value: Molecular delta Ratio 1: 15N delta 45 2.50 wrt: Ratio 2: 18O delta 46 25.00 Air SMOW	Equilibrium correction: None

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	6.86	29.4	7.9020E-03	2.0568E-03
2	4.04	89.4	7.9025E-03	2.0584E-03
3	4.04	149.4	7.9002E-03	2.0583E-03
4	1.37	209.4	7.9029E-03	2.0601E-03
5	1.36	269.4	7.9029E-03	2.0600E-03
6	2.80	329.4	7.8996E-03	2.0590E-03
7	4.87	389.4	7.9001E-03	2.0577E-03
8	4.86	449.4	7.8998E-03	2.0577E-03
9	4.85	509.4	7.8992E-03	2.0576E-03
10	4.85	569.4	7.8989E-03	2.0576E-03

Mean: 7.9008E-03 2.0582E-03
Std Dev of fit (%): 0.14 0.53

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
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Bugs nitrate run log

1-30-2013

Vial #		Sample	temp ID	conc.	volume (ul)
1		air-1		0.00	n/a
2		IAEA-NO3-1		9.94	323
3		IAEA-NO3-2		9.94	323
4		USGS32-1		10.22	314
5		USGS34-1		10.11	318
6	BA01	CASA-13-24374	1	3.77	852
7	BA02	CASA-13-24374	2	3.77	852
8	BA03	CASA-13-24373	1	23.33	138
9	BA04	CASA-13-24373	2	23.33	138
10	BB09	CAMO-13-24370	1	3.15	1020
11	BB10	CAMO-13-24370	2	3.15	1020
12		IAEA-NO3-3		9.94	323
13		Blank		0.00	#DIV/0!
14	FA01	CAPA-12-13478	1	22.54	142
15	FA02	CAPA-12-13478	2	22.54	142
16	FA03	CAPA-12-13479	1	23.92	134
17	FA04	CAPA-12-13479	2	23.92	134
18	FD01	CAMO-12-22328	1	5.62	572
19	FD02	CAMO-12-22328	2	5.62	572
20		IAEA-NO3-4		9.94	323
21	FD03	CAMO-12-14078	1	5.21	616
22	FD04	CAMO-12-14078	2	5.21	616
23	FD09	CAPA-12-13477	1	16.73	192
24	FD10	CAPA-12-13477	2	16.73	192
25	FA05	CAPA-11-22872 lcs	2	0.85	3783
26		USGS32-2		10.22	314
27		IAEA-NO3-5		9.94	323
28		Malink-1		10.34	311
29		USGS34-2		10.11	318

Stable Isotope Analysis

Batch Results Sheet, N2O



Batch start: 31/1/13 10:41

Project: Trace Gas Nitrates.PRO

Batch end: 31/1/13 10:49

Blank Subtracted: FALSE

Temp Correction: None

Calculated Using Standards: FALSE

EC Calculated Using Aux. Detector: TRUE

Analysis results

Sample Number	Name	Acquisition date	RT (Sec)	Height (nA)	Type	Weight (mg)	Sample Description	15N	18O		
2	AEA-NO3-1 1-30-2013.raw	30/1/13 14:36	256.2	8.39		0.00		5.78	39.54		
3	AEA-NO3-2 1-30-2013.raw	30/1/13 15:03	254.3	8.29		0.00		5.68	39.13		
4	USGS32-1 1-30-2013.raw	30/1/13 15:29	253.1	8.44		0.00		168.24	42.22		
5	USGS34-1 1-30-2013.raw	30/1/13 15:56	261.0	7.70		0.00		0.00	-3.87		
6	SA-13-24374 1 1-30-2013.	30/1/13 16:22	259.3	10.06		0.00		5.37	15.68		
7	SA-13-24374 2 1-30-2013.	30/1/13 16:49	258.2	9.10		0.00		5.89	15.79		
8	SA-13-24373 1 1-30-2013.	30/1/13 17:15	256.6	6.51		0.00		7.05	18.76		
9	SA-13-24373 2 1-30-2013.	30/1/13 17:41	256.7	7.04		0.00		6.66	17.50		
10	MO-13-24370 1 1-30-2013.	30/1/13 18:08	256.4	9.50	Iso	0.00		10.12	15.73		
11	MO-13-24370 2 1-30-2013.	30/1/13 18:34	256.6	11.49	Iso	0.00		10.32	16.01		
12	AEA-NO3-3 1-30-2013.raw	30/1/13 19:01	255.6	8.05	Iso	0.00		6.72	41.33		
13	Blank 1-30-2013.raw	30/1/13 19:27	237.0	0.12	Iso	0.00		516.05	998.96		
			257.9	0.07				60.53	138.43		
14	PA-12-13478 1 1-30-2013.	30/1/13 19:54	253.8	6.37	Iso	0.00		7.97	15.60		
15	PA-12-13478 2 1-30-2013.	30/1/13 20:20	253.5	5.78	Iso	0.00		8.06	15.99		
16	PA-12-13479 1 1-30-2013.	30/1/13 20:47	253.5	5.75	Iso	0.00		8.14	15.82		
17	PA-12-13479 2 1-30-2013.	30/1/13 21:13	264.4	5.44	Iso	0.00		8.63	16.99		
18	MO-12-22328 1 1-30-2013.	30/1/13 21:40	263.3	6.41	Iso	0.00		10.55	18.26		
19	MO-12-22328 2 1-30-2013.	30/1/13 22:06	256.9	8.05	Iso	0.00		10.47	16.95		
20	AEA-NO3-4 1-30-2013.raw	30/1/13 22:32	261.5	7.44	Iso	0.00		5.66	39.87		
21	MO-12-14078 1 1-30-2013.	30/1/13 22:59	255.4	7.28	Iso	0.00		10.32	17.10		
22	MO-12-14078 2 1-30-2013.	30/1/13 23:25	257.6	7.01	Iso	0.00		10.44	17.09		
23	PA-12-13477 1 1-30-2013.	30/1/13 23:52	258.5	6.61	Iso	0.00		8.46	16.47		
24	PA-12-13477 2 1-30-2013.	31/1/13 0:19	259.0	5.89	Iso	0.00		8.44	16.71		
25	A-11-22872 lcs 2 1-30-2013.	31/1/13 0:45	258.0	13.08	Iso	0.00		0.61	9.29		
26	USGS32-2 1-30-2013.raw	31/1/13 1:12	256.3	9.07	Iso	0.00		168.35	42.00		
27	AEA-NO3-5 1-30-2013.raw	31/1/13 9:22	241.7	0.10	Iso	0.00		513.22	992.32		
			262.3	0.27				21.44	70.70		
28	Malink-1 1-30-2013.raw	31/1/13 9:59	260.5	7.36	Iso	0.00		3.40	32.19		
29	USGS34-2 1-30-2013.raw	31/1/13 10:33	259.2	6.87	Blank	0.00		-0.79	-4.94		

Nitrate calibrated data

Date analyzed:

2/7/2012

Operator:

George Perkins

Isoprime data file:

Nitrate Bugs 2/7/2012

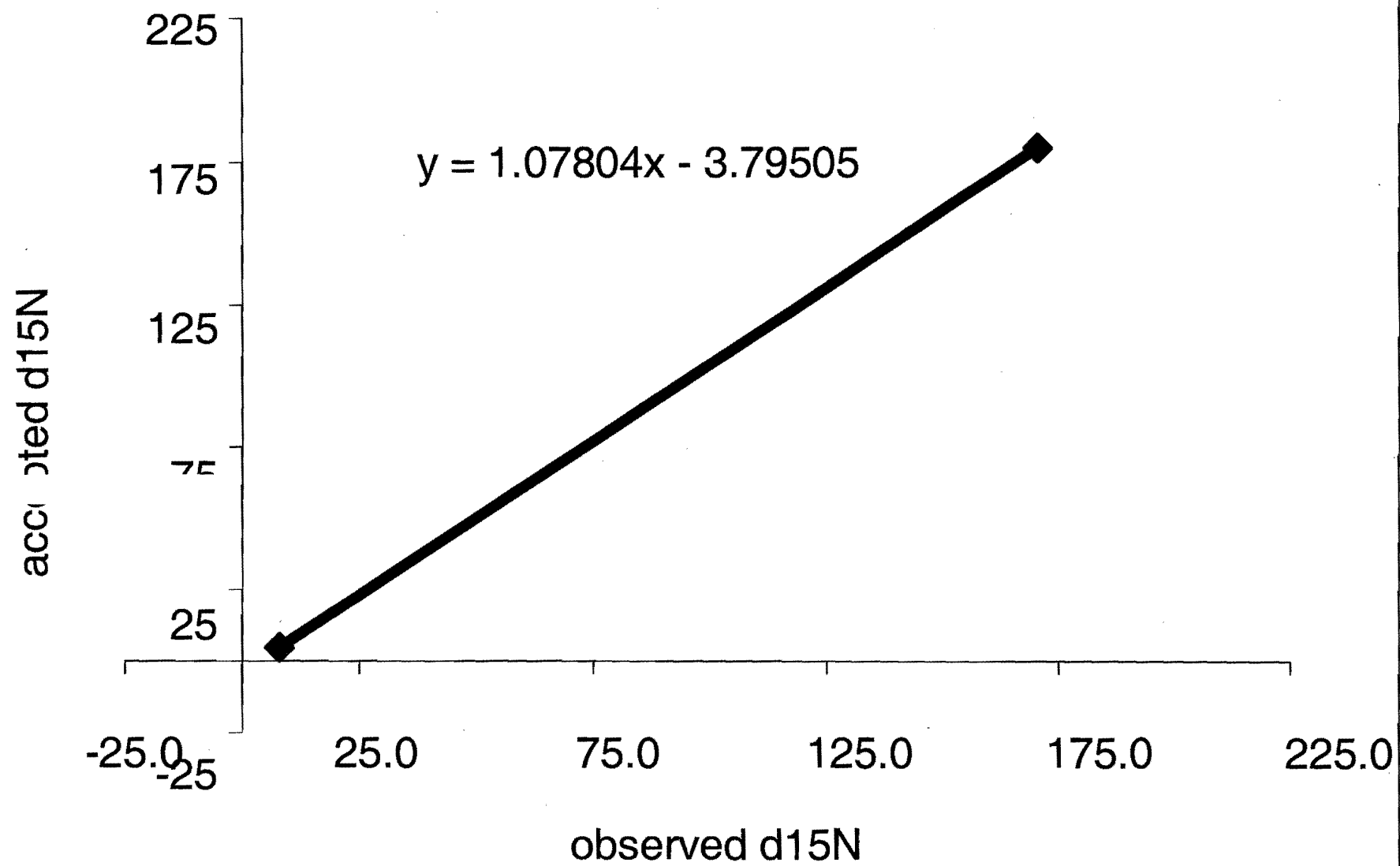
Generation of calibrat		$\delta^{15}\text{N}$ Value		$\delta^{18}\text{O}$	$\delta^{18}\text{O}$	$\delta^{17}\text{O}$
		actual	obs	actual	measured	actual
KNO ₃	USGS35	2.7		57.5		51.5
KNO ₃	USGS32	180.0	170.49	25.7		
KNO ₃	IAEA-NO3	4.7	7.88	25.6	44.41	
KNO ₃	USGS34	-1.8		-27.9	-5.43	8.99
slope						b-int.
$\delta^{18}\text{O}= 1.0734$						-22.07
$\delta^{15}\text{N}= 1.07804$						-3.80
N-linearity		0.0000				
O-linearity		0.0000				

Sample #	Sample Name	RT	Pk Ht	Raw d15N	Raw d18O	Corr d15N	Corr d18O	corr. d15N	corr. d18O	Comment
2	air-1 2-7-2012.raw	261.3	0.09	43.95	100.15	43.59	85.43	43.59	85.43	
3	IAEA-NO3-1 2-7-2012.raw	260.8	6.45	7.93	44.54	4.75	25.74	4.75	25.74	
4	IAEA-NO3-2 2-7-2012.raw	259.4	7.49	7.87	44.04	4.69	25.20	4.69	25.20	
5	USGS32-1 2-7-2012.raw	259.7	8.59	170.60	46.86	180.12	28.23	180.12	28.23	
6	USGS34-1 2-7-2012.raw	259.8	7.86	0.81	-5.60	-2.92	-28.09	-2.92	-28.09	
7	SF-4C 1-30-12 2-7-2012.raw	259.5	10.42	5.97	16.99	2.64	-3.84	2.64	-3.84	
8	CAPA-11-9589 1 2-7-2012.raw	260.1	10.81	4.72	12.01	1.30	-9.19	1.30	-9.19	
9	CAPA-11-23033 1 2-7-2012.raw	258.5	5.56	7.71	17.11	4.52	-3.71	4.52	-3.71	
10	CAPA-11-23037 1 2-7-2012.raw	256.3	5.28	8.36	17.23	5.22	-3.58	5.22	-3.58	
11	CAPA-11-23028 1 2-7-2012.raw	256.9	6.56	8.28	17.18	5.13	-3.63	5.13	-3.63	
12	CAPA-11-23030 1 2-7-2012.raw	255.2	5.66	7.70	15.88	4.51	-5.03	4.51	-5.03	
13	IAEA-NO3-3 2-7-2012.raw	269.6	6.93	7.93	45.13	4.75	26.37	4.75	26.37	
14	Blank 2-7-2012.raw	264.9	0.04	65.97	147.88	67.32	136.66	67.32	136.66	
15	CAPA-11-22875 1 2-7-2012.raw	266.1	9.07	6.34	14.64	3.04	-6.36	3.04	-6.36	
16	CAMO-11-24682 1 2-7-2012.raw	265.9	7.70	6.37	16.98	3.07	-3.84	3.07	-3.84	
17	CAMO-11-24651 1 2-7-2012.raw	267.0	9.82	6.89	15.64	3.63	-5.29	3.63	-5.29	
18	CAMO-11-24688 1 2-7-2012.raw	266.6	7.89	8.48	16.82	5.35	-4.02	5.35	-4.02	
19	CAMO-11-24692 1 2-7-2012.raw	265.2	10.42	6.42	15.72	3.13	-5.20	3.13	-5.20	

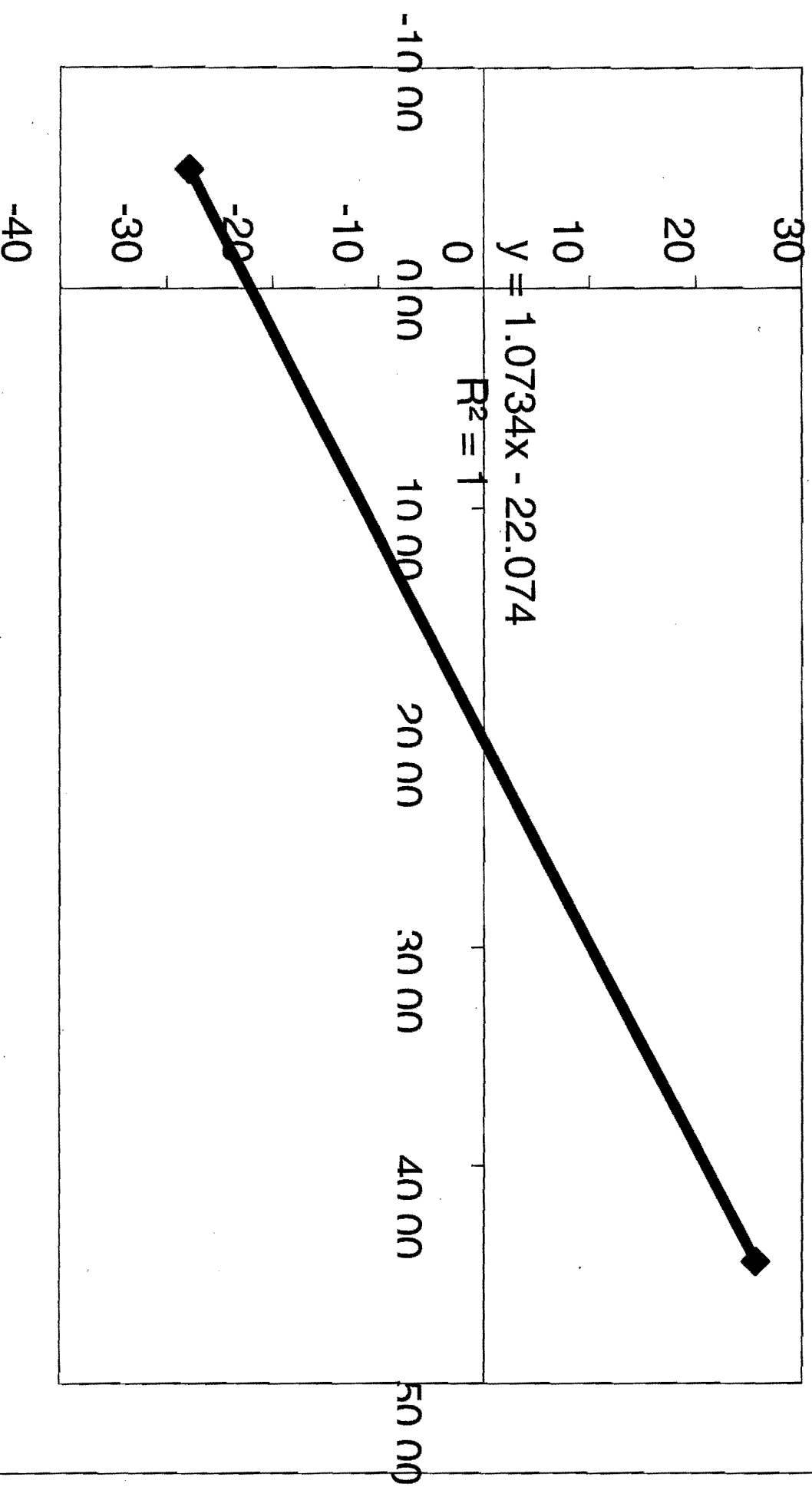
20	CAMO-11-24696 1 2-7-2012.raw	265.4	7.87		8.99	18.15	5.90	-2.59	5.90	-2.59	
21	IAEA-NO3-4 2-7-2012.raw	270.7	7.40		7.79	44.03	4.60	25.19	4.60	25.19	
22	CAMO-11-24702 1 2-7-2012.raw	269.2	7.18		7.48	-1.95	4.27	-24.16	4.27	-24.16	
23	CAPU-11-26382 1 2-7-2012.raw	267.7	8.58		7.25	16.26	4.02	-4.62	4.02	-4.62	
24	CAPU-11-26375 1 2-7-2012.raw	265.1	7.41		24.92	22.10	23.07	1.64	23.07	1.64	
25	CAPU-11-26375 1-DUP 2-7-2012.raw	266.3	7.12		25.08	22.00	23.24	1.54	23.24	1.54	
26	SF-4C 1-30-12 -DUP 2-7-2012.raw	265.8	8.89		5.80	17.46	2.45	-3.33	2.45	-3.33	
27	IAEA-NO3-5 2-7-2012.raw	265.6	7.26		7.88	44.31	4.70	25.49	4.70	25.49	
28	Malink-1 2-7-2012.raw	264.8	8.33		4.77	36.14	1.35	16.72	1.35	16.72	
29	USGS34-2 2-7-2012.raw	264.6	8.01		0.40	-5.25	-3.36	-27.71	-3.36	-27.71	
30	USGS32-2 2-7-2012.raw	263.7	7.35		170.38	47.19	179.88	28.58	179.88	28.58	

4.70	25.60	4.70	25.60
0.06	0.49	0.06	0.49

d15N calibration



d18O Calibration



Stable Isotope Analysis

Batch Results Sheet, N2O



Batch start: 7/2/12 12:26

Project: Trace Gas Nitrates.PRO

Batch end: 8/2/12 1:22

Blank Subtracted: FALSE

Temp Correction: None

Calculated Using Standards: FALSE

EC Calculated Using Aux. Detector: TRUE

Analysis results

Sample Number	Name	Acquisition date	RT (Sec)	Height (nA)	Type	Weight (mg)	Sample Description	15N	18O		
2	air-1 2-7-2012.raw	7/2/12 12:46	239.2	0.13		0.00		515.11	995.52		
			261.3	0.09				43.95	100.15		
3	IAEA-NO3-1 2-7-2012.raw	7/2/12 13:14	260.8	6.45		0.00		7.93	44.54		
4	IAEA-NO3-2 2-7-2012.raw	7/2/12 13:43	259.4	7.49		0.00		7.87	44.04		
5	USGS32-1 2-7-2012.raw	7/2/12 14:09	259.7	8.59		0.00		170.60	46.86		
6	USGS34-1 2-7-2012.raw	7/2/12 14:36	259.8	7.86		0.00		0.81	-5.60		
7	F-4C 1-30-12 2-7-2012.ra	7/2/12 15:02	259.5	10.42		0.00		5.97	16.99		
8	APA-11-9589 1 2-7-2012.ra	7/2/12 15:29	260.1	10.81		0.00		4.72	12.01		
9	APA-11-23033 1 2-7-2012.r	7/2/12 15:56	235.8	0.24		0.00		520.22	1001.65		
			258.5	5.56				7.71	17.11		
10	APA-11-23037 1 2-7-2012.r	7/2/12 16:22	233.6	0.24	Iso	0.00		522.20	1003.97		
			256.3	5.28				8.36	17.23		
11	APA-11-23028 1 2-7-2012.r	7/2/12 16:49	256.9	6.56	Iso	0.00		8.28	17.18		
12	APA-11-23030 1 2-7-2012.r	7/2/12 17:15	232.5	0.25	Iso	0.00		520.20	1001.61		
			255.2	5.66				7.70	15.88		
13	IAEA-NO3-3 2-7-2012.raw	7/2/12 17:43	269.6	6.93	Iso	0.00		7.93	45.13		
14	Blank 2-7-2012.raw	7/2/12 18:10	242.6	0.13	Iso	0.00		515.91	992.88		
			264.9	0.04				65.97	147.88		
15	APA-11-22875 1 2-7-2012.r	7/2/12 18:36	266.1	9.07	Iso	0.00		6.34	14.64		
16	MO-11-24682 1 2-7-2012.r	7/2/12 19:03	265.9	7.70	Iso	0.00		6.37	16.98		
17	MO-11-24651 1 2-7-2012.r	7/2/12 19:29	267.0	9.82	Iso	0.00		6.89	15.64		
18	MO-11-24688 1 2-7-2012.r	7/2/12 19:56	266.6	7.89	Iso	0.00		8.48	16.82		
19	MO-11-24692 1 2-7-2012.r	7/2/12 20:22	265.2	10.42	Iso	0.00		6.42	15.72		
20	MO-11-24696 1 2-7-2012.r	7/2/12 20:49	265.4	7.87	Iso	0.00		8.99	18.15		
21	IAEA-NO3-4 2-7-2012.raw	7/2/12 21:15	270.7	7.40	Iso	0.00		7.79	44.03		
22	MO-11-24702 1 2-7-2012.r	7/2/12 21:42	269.2	7.18	Iso	0.00		7.48	-1.95		
23	APU-11-26382 1 2-7-2012.r	7/2/12 22:08	267.7	8.58	Iso	0.00		7.25	16.26		
24	APU-11-26375 1 2-7-2012.r	7/2/12 22:35	265.1	7.41	Iso	0.00		24.92	22.10		
25	J-11-26375 1-DUP 2-7-201	7/2/12 23:02	266.3	7.12	Iso	0.00		25.08	22.00		
26	4C 1-30-12 -DUP 2-7-2012	7/2/12 23:29	265.8	8.89	Iso	0.00		5.80	17.46		
27	IAEA-NO3-5 2-7-2012.raw	7/2/12 23:55	265.6	7.26	Iso	0.00		7.88	44.31		
28	Malink-1 2-7-2012.raw	8/2/12 0:22	264.8	8.33	Iso	0.00		4.77	36.14		
29	USGS34-2 2-7-2012.raw	8/2/12 0:48	264.6	8.01	Blank	0.00		0.40	-5.25		
30	USGS32-2 2-7-2012.raw	8/2/12 1:15	263.7	7.35	Blank	0.00		170.38	47.19		

Bugs nitrate run log

2-7-2012

Vial #		Sample	temp ID	conc.	volume (ul)
1		air-1			0.00 n/a
2		IAEA-NO3-1		10.92596093	294
3		IAEA-NO3-2		10.92596093	294
4		USGS32-1		10.29729012	312
5		USGS34-1		9.773412532	329
6	Fridge	SF-4C 1-30-12		15.75	204
7	AA01	CAPA-11-9589	1	1.63	1966
8	AA02	CAPA-11-23033	1	3.12	1029
9	AA03	CAPA-11-23037	1	2.83	1135
10	AA04	CAPA-11-23028	1	4.55	706
11	AA05	CAPA-11-23030	1	2.96	1086
12		IAEA-NO3-3		10.92596093	294
13		Blank		0.00	#DIV/0!
14	AA09	CAPA-11-22875	1	1.12	2859
15	AA10	CAMO-11-24682	1	1.98	1623
16	AB01	CAMO-11-24651	1	1.60	2007
17	AB02	CAMO-11-24688	1	1.54	2091
18	AB03	CAMO-11-24692	1	1.42	2266
19	AB04	CAMO-11-24696	1	3.90	823
20		IAEA-NO3-4		10.92596093	294
21	AB05	CAMO-11-24702	1	0.99	3241
22	AB06	CAPU-11-26382	1	2.05	1564
23	AB07	CAPU-11-26375	1	13.57	237
24	AB07	CAPU-11-26375	1	13.57	237
25	Fridge	SF-4C 1-30-12		15.75	204
26		IAEA-NO3-5		10.92596093	294
27		Malink-1		10.31874636	311
28		USGS34-2		9.773412532	329
29		USGS32-2		10.29729012	312

Stable Isotope CF Analysis Results



File: N2O Linearity 2-7-2012.raw	Acquisition Date: 7/2/12 12:06I
Project: Trace Gas Nitrates.PRO	Weight: 0.00
Sample list: Ref gas stability template.spl	Injection Volume: 0
Line: 4	Bottle: 3
MS file: N2O ref gas stability	Type:
Inlet: Trace Gas	Standard:
Inlet file: Ref Gas Stability	Slot Number: JB118
Sample ID:	Run Index:
Description:	

Reference standard	Corrections
Species: N2O by CF (uncalibrated)	Equilibrium correction: None
Gas: N2O Uncalibrated N2O	
Ratio type: Molecular	
Deconvolution: No deconvolution	
Elemental delta	
Label: Value: Label: Value: wrt:	
Ratio 1: 15N delta 45 2.50 Air	
Ratio 2: 18O delta 46 25.00 SMOW	

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	1.46	29.2	7.8848E-03	2.0654E-03
2	2.47	89.2	7.8843E-03	2.0650E-03
3	2.46	149.2	7.8839E-03	2.0648E-03
4	3.82	209.2	7.8837E-03	2.0644E-03
5	3.82	269.2	7.8837E-03	2.0643E-03
6	5.16	329.2	7.8834E-03	2.0638E-03
7	5.14	389.2	7.8831E-03	2.0638E-03
8	6.82	449.1	7.8829E-03	2.0630E-03
9	6.81	509.1	7.8828E-03	2.0630E-03
10	7.93	569.1	7.8824E-03	2.0626E-03

Mean: 7.8835E-03 2.0640E-03
Std Dev of fit (%): 0.02 0.07

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
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Stable Isotope CF Analysis Results



File: N2O Stability 2-7-2012.raw	Acquisition Date: 7/2/12 11:15
Project: Trace Gas Nitrates.PRO	Weight: 0.00
Sample list: Ref gas stability template.spl	Injection Volume: 0
Line: 3	Bottle: 2
MS file: N2O ref gas stability	Type:
Inlet: Trace Gas	Standard:
Inlet file: Ref Gas Stability	Slot Number: JB118
Sample ID:	Run Index:
Description:	

Reference standard	Corrections
Species: N2O by CF (uncalibrated)	Equilibrium correction: None
Gas: N2O Uncalibrated N2O	
Ratio type: Molecular	
Deconvolution: No deconvolution	
Elemental delta	
Label: Value:	
Ratio 1: 15N	Molecular delta
Ratio 2: 18O	Label: Value: wrt:
	delta 45 2.50 Air
	delta 46 25.00 SMOW

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	6.02	29.1	7.9074E-03	2.0634E-03
2	6.01	89.1	7.9045E-03	2.0632E-03
3	6.01	149.1	7.9019E-03	2.0631E-03
4	6.01	209.1	7.8998E-03	2.0632E-03
5	6.00	269.1	7.8981E-03	2.0631E-03
6	6.01	329.1	7.8967E-03	2.0631E-03
7	6.01	389.1	7.8954E-03	2.0631E-03
8	5.99	449.1	7.8941E-03	2.0632E-03
9	6.00	509.1	7.8930E-03	2.0631E-03
10	5.99	569.1	7.8923E-03	2.0630E-03

Mean: 7.8983E-03 2.0631E-03
Std Dev of fit (%): 0.13 0.04

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 15N	Ratio 46/44	Raw Delta	delta 18O
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Multiflow ¹⁸O-water calibrated data

Date: 23-Aug-11
 Operator: George Perkins
 Isoprime data file: MF O18 Waters 8/23/2011

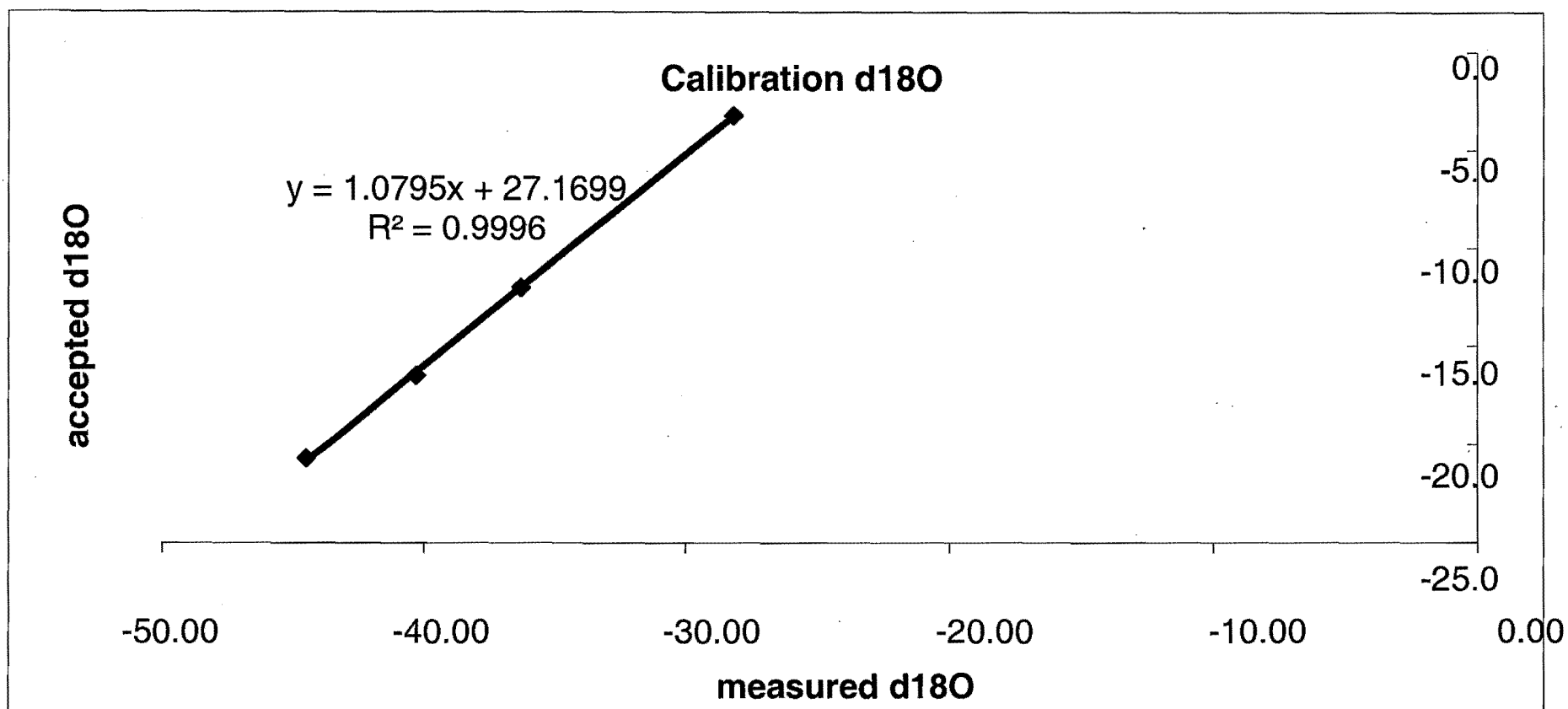
This file was cross checked and the calibration is good

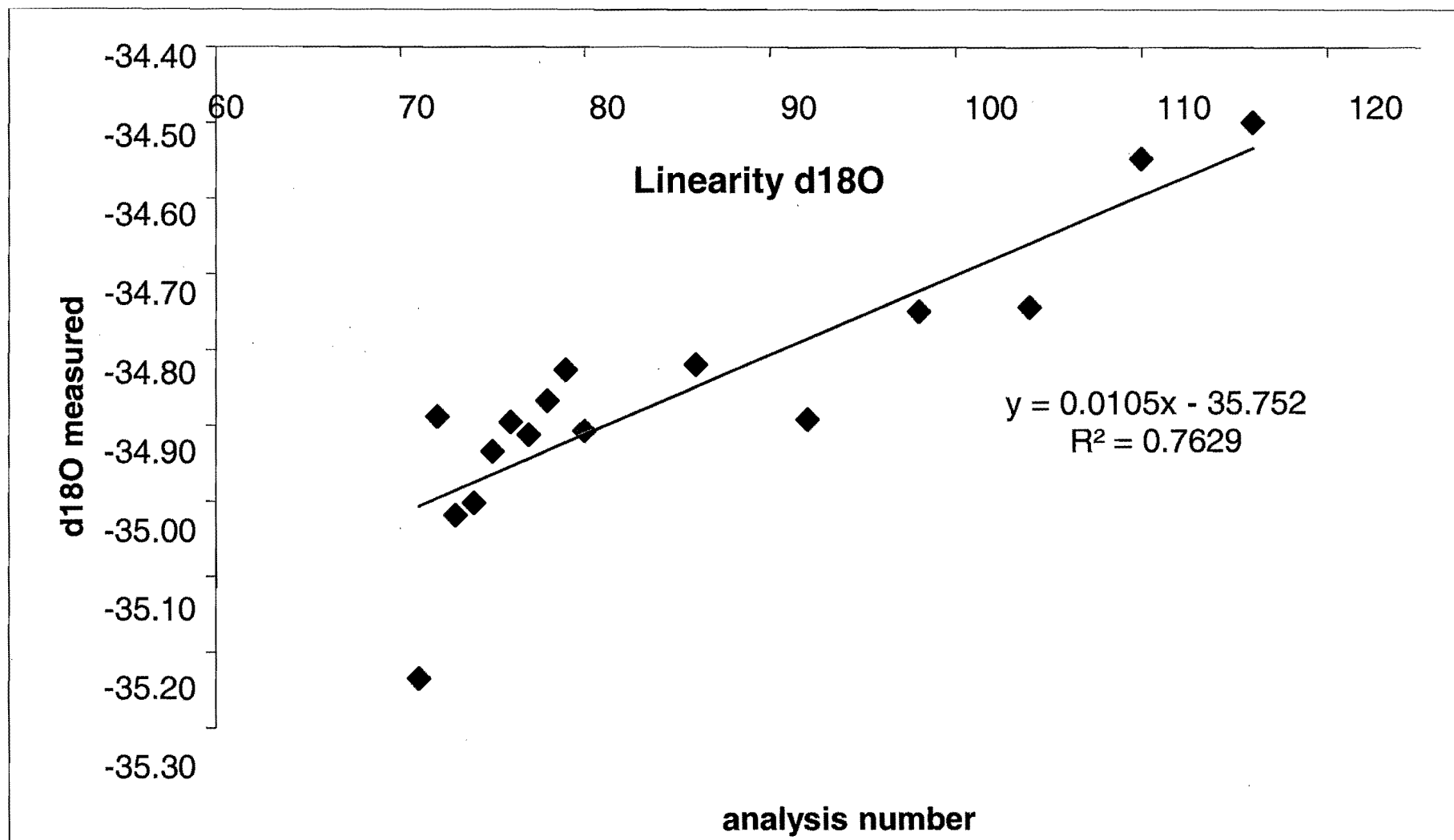
Generation of calibration curve:		$\delta^{18}\text{O}$ actual	$\delta^{18}\text{O}$ observed	$\delta^{18}\text{O}$ std.dev.
SMOW		0.0		
GISP		-24.8		
SLAP		-55.6		
Cowboy		-10.9		
Ginnie		-3.2	-28.19	
Pahpow		-16.5	-40.27	
Rufina		-12.0	-36.28	
Uncle Bud		-20.7	-44.48	
slope		b-int.		
$\delta^{18}\text{O}$ vsmw	1.0795	+		
drift	0.0105	27.17		

Sample Number	Name	reten. time	Height (mass 44)	Raw $\delta^{18}\text{O}$	Corr. $\delta^{18}\text{O}$ vsmw	drift corr. $\delta^{18}\text{O}$	Actual
MF O18 Waters 8-23-2011							
64	air-1 8-23-2011.raw	91.6	5.74	-34.69	-10.28	-10.22	
65	air-2 8-23-2011.raw	91.6	5.72	-35.18	-10.81	-10.75	
66	air-3 8-23-2011.raw	91.7	6.28	-35.59	-11.25	-11.20	
67	Ginnie-1 8-23-2011.raw	91.8	5.80	-28.19	-3.26	-3.22	-3.20
68	PahPow-1 8-23-2011.raw	91.7	5.85	-40.27	-16.31	-16.29	-16.50
69	Rufina-1 8-23-2011.raw	91.4	5.87	-36.28	-11.99	-11.98	-12.00
70	UncleBud-1 8-23-2011.raw	91.4	5.87	-44.48	-20.85	-20.85	-20.70
71	DoubleDI-1 8-23-2011.raw	91.3	5.91	-35.23	-10.87	-10.88	-10.90
72	DoubleDI-2 8-23-2011.raw	91.3	5.61	-34.89	-10.49	-10.51	-10.90
73	DoubleDI-3 8-23-2011.raw	91.3	5.87	-35.02	-10.63	-10.66	-10.90
74	DoubleDI-4 8-23-2011.raw	91.3	5.90	-35.00	-10.61	-10.66	-10.90
75	DoubleDI-5 8-23-2011.raw	91.4	5.89	-34.93	-10.54	-10.59	-10.90
76	DoubleDI-6 8-23-2011.raw	91.2	5.81	-34.90	-10.50	-10.56	-10.90
77	DoubleDI-7 8-23-2011.raw	91.1	5.86	-34.91	-10.52	-10.59	-10.90
78	DoubleDI-8 8-23-2011.raw	91.3	5.91	-34.87	-10.47	-10.55	-10.90
79	DoubleDI-9 8-23-2011.raw	91.1	5.84	-34.83	-10.43	-10.52	-10.90
80	DoubleDI-10 8-23-2011.raw	91.2	5.68	-34.91	-10.51	-10.62	-10.90
81	Dairy Cheyenne I III Well 11436 8-23-2011	91.1	5.88	-31.52	-6.85	-6.97	
82	Dairy 167 Morales Domestic 8-23-2011.raw	91.0	5.85	-31.95	-7.32	-7.44	
83	CAPA-11-23035 1 8-23-2011.raw	91.0	5.77	-35.17	-10.80	-10.94	
84	CAPA-11-23039 1 8-23-2011.raw	90.9	5.88	-35.29	-10.93	-11.07	
85	CAPA-11-23024 1 8-23-2011.raw	91.0	5.87	-34.95	-10.56	-10.72	
86	DoubleDI-11 8-23-2011.raw	91.0	5.87	-34.82	-10.42	-10.59	-10.90
87	CAPA-11-23022 1 8-23-2011.raw	91.0	5.85	-34.94	-10.55	-10.73	

$\delta^{18}\text{O}_{\text{vsmw}}$		1.0795	+		27.17		
88	CAPA-11-22978 1 8-23-2011.raw	90.9	5.88	-34.41	-9.97	-10.16	
89	CAPA-11-23029 1 8-23-2011.raw	91.0	5.84	-35.16	-10.79	-10.99	
90	CAPA-11-23032 1 8-23-2011.raw	91.0	5.86	-35.26	-10.89	-11.10	
91	CASA-11-10823 1 8-23-2011.raw	90.9	5.91	-35.42	-11.07	-11.29	
92	DoubleDI-12 8-23-2011.raw	91.0	5.87	-34.89	-10.50	-10.73	-10.90
93	CAPA-11-22851 1 8-23-2011.raw	91.2	5.80	-35.25	-10.88	-11.13	
94	CAPA-11-23020 1 8-23-2011.raw	91.0	5.89	-35.35	-10.99	-11.24	
95	CAPA-11-22871 1 8-23-2011.raw	91.0	5.84	-35.04	-10.65	-10.91	
96	CAPA-11-22876 1 8-23-2011.raw	90.9	5.80	-35.29	-10.93	-11.20	
97	CAMO-11-24681 1 8-23-2011.raw	90.9	5.87	-35.06	-10.68	-10.96	
98	DoubleDI-13 8-23-2011.raw	90.9	5.71	-34.75	-10.34	-10.64	-10.90
99	CAMO-11-24650 1 8-23-2011.raw	91.0	5.86	-35.09	-10.71	-11.02	
100	CAMO-11-10755 1 8-23-2011.raw	90.9	5.86	-34.83	-10.43	-10.74	
101	CAMO-11-10760 1 8-23-2011.raw	91.0	5.92	-34.76	-10.36	-10.68	
102	CAMO-11-10824 1 8-23-2011.raw	91.0	5.81	-35.57	-11.23	-11.56	
103	CAPU-11-13928 1 8-23-2011.raw	91.0	5.65	-34.70	-10.28	-10.63	
104	DoubleDI-14 8-23-2011.raw	90.9	5.83	-34.74	-10.34	-10.69	-10.90
105	CAAN-11-13955 1 8-23-2011.raw	91.0	5.75	-35.24	-10.87	-11.24	
106	CAPU-11-13932 1 8-23-2011.raw	90.9	5.90	-34.82	-10.42	-10.79	
107	CAAN-11-13959 1 8-23-2011.raw	91.0	5.79	-35.49	-11.14	-11.53	
108	CAWA-11-14624 1 8-23-2011.raw	91.0	5.88	-36.06	-11.76	-12.16	
109	CAPA-11-23043 1 8-23-2011.raw	90.9	5.89	-34.90	-10.51	-10.92	
110	DoubleDI-15 8-23-2011.raw	91.0	5.47	-34.55	-10.12	-10.54	-10.90
111	CAPA-11-23047 1 8-23-2011.raw	91.0	5.82	-34.82	-10.41	-10.84	
112	Precipitation GGRL June 2011 8-23-2011.r	91.0	5.91	-26.68	-1.64	-2.08	
113	Precipitation GGRL July 2011 8-23-2011.ra	91.0	5.78	-27.42	-2.43	-2.88	
114	Precipitation GGRL June 2011 dup 8-23-20	91.0	5.89	-26.56	-1.50	-1.96	
115	Precipitation GGRL July 2011 dup 8-23-201	91.1	5.86	-27.65	-2.68	-3.15	
116	DoubleDI-16 8-23-2011.raw	91.1	5.95	-34.50	-10.07	-10.56	-10.90
117	Dairy Cheyenne I III Well 11436 dup 8-23-2	91.2	5.95	-31.40	-6.73	-7.22	
118	Dairy 167 Morales Domestic dup 8-23-2011	91.2	5.19	-31.55	-6.89	-7.39	
119	Precipitation GGRL April May 2011 lcs 8-23	91.1	5.92	-34.81	-10.41	-10.92	
120	Ginnie-2 8-23-2011.raw	91.1	5.83	-27.46	-2.48	-3.00	-3.20
121	PahPow-2 8-23-2011.raw	91.0	5.77	-40.08	-16.10	-16.63	-16.50
122	Rufina-2 8-23-2011.raw	91.1	5.84	-35.84	-11.52	-12.06	-12.00
123	UncleBud-2 8-23-2011.raw	91.1	5.86	-44.60	-20.97	-21.53	-20.70

-10.46 -10.62
0.19 0.09





Stable Isotope Analysis Batch Results Sheet, CO2



Batch start: 24/8/11 1:57

Project: Multiflow New.PRO

Batch end: 24/8/11 7:17

Blank Subtracted: FALSE

Temp Correction: None

Calculated Using Standards: FALSE

EC Calculated Using Aux. Detector: TRUE

Analysis results

Sample Number	Name	Acquisition date	RT (Sec)	Height (nA)	Type	Weight (mg)	Sample Description	13C	18O
64	air-1 8-23-2011.raw	24/8/11 1:59	91.6	5.74		0.00		-1.60	-34.69
65	air-2 8-23-2011.raw	24/8/11 2:04	91.6	5.72		0.00		-1.70	-35.18
66	air-3 8-23-2011.raw	24/8/11 2:10	91.7	6.28		0.00		-2.06	-35.59
67	Ginnie-1 8-23-2011.raw	24/8/11 2:15	91.8	5.80		0.86		-2.30	-28.19
68	PahPow-1 8-23-2011.raw	24/8/11 2:20	91.7	5.85		0.89		-2.13	-40.27
69	Rufina-1 8-23-2011.raw	24/8/11 2:25	91.4	5.87		0.69		-2.03	-36.28
70	UncleBud-1 8-23-2011.raw	24/8/11 2:31	91.4	5.87		1.03		-2.15	-44.48
71	DoubleDI-1 8-23-2011.raw	24/8/11 2:36	91.3	5.91		0.84		-2.03	-35.23
72	DoubleDI-2 8-23-2011.raw	24/8/11 2:41	91.3	5.61		0.84		-2.01	-34.89
73	DoubleDI-3 8-23-2011.raw	24/8/11 2:47	91.3	5.87		0.84		-2.02	-35.02
74	DoubleDI-4 8-23-2011.raw	24/8/11 2:52	91.3	5.90		0.84		-2.01	-35.00
75	DoubleDI-5 8-23-2011.raw	24/8/11 2:57	91.4	5.89		0.93		-2.00	-34.93
76	DoubleDI-6 8-23-2011.raw	24/8/11 3:02	91.2	5.81		0.91		-2.05	-34.90
77	DoubleDI-7 8-23-2011.raw	24/8/11 3:08	91.1	5.86		0.00		-2.08	-34.91
78	DoubleDI-8 8-23-2011.raw	24/8/11 3:13	91.3	5.91		0.83		-1.99	-34.87
79	DoubleDI-9 8-23-2011.raw	24/8/11 3:18	91.1	5.84		1.24		-2.08	-34.83
80	DoubleDI-10 8-23-2011.raw	24/8/11 3:24	91.2	5.68		0.94		-2.02	-34.91
81	yenne I III Well 11436 8-23-2011	24/8/11 3:29	91.1	5.88		0.87		-2.76	-31.52
82	7 Morales Domestic 8-23-2011	24/8/11 3:34	91.0	5.85		0.94		-2.63	-31.95
83	PA-11-23035 1 8-23-2011	24/8/11 3:40	91.0	5.77		1.00		-2.47	-35.17
84	PA-11-23039 1 8-23-2011	24/8/11 3:45	90.9	5.88		1.09		-2.40	-35.29
85	PA-11-23024 1 8-23-2011	24/8/11 3:50	91.0	5.87		1.16		-2.39	-34.95
86	DoubleDI-11 8-23-2011.raw	24/8/11 3:56	91.0	5.87		0.94		-2.09	-34.82
87	PA-11-23022 1 8-23-2011	24/8/11 4:01	91.0	5.85		0.82		-2.43	-34.94
88	PA-11-22978 1 8-23-2011	24/8/11 4:06	90.9	5.88		0.74		-2.45	-34.41
89	PA-11-23029 1 8-23-2011	24/8/11 4:12	91.0	5.84		0.84		-2.36	-35.16
90	PA-11-23032 1 8-23-2011	24/8/11 4:17	91.0	5.86		1.06		-2.39	-35.26
91	SA-11-10823 1 8-23-2011	24/8/11 4:22	90.9	5.91		0.88		-2.39	-35.42
92	DoubleDI-12 8-23-2011.raw	24/8/11 4:28	91.0	5.87		0.00		-2.03	-34.89
93	PA-11-22851 1 8-23-2011	24/8/11 4:33	91.2	5.80		0.00		-2.29	-35.25
94	PA-11-23020 1 8-23-2011	24/8/11 4:38	91.0	5.89		0.00		-2.44	-35.35
95	PA-11-22871 1 8-23-2011	24/8/11 4:44	91.0	5.84		0.00		-2.29	-35.04
96	PA-11-22876 1 8-23-2011	24/8/11 4:49	90.9	5.80		0.00		-2.37	-35.29
97	MO-11-24681 1 8-23-2011	24/8/11 4:54	90.9	5.87		0.00		-2.35	-35.06
98	DoubleDI-13 8-23-2011.raw	24/8/11 4:59	90.9	5.71		0.00		-2.00	-34.75
99	MO-11-24650 1 8-23-2011	24/8/11 5:05	91.0	5.86		0.00		-2.38	-35.09
100	MO-11-10755 1 8-23-2011	24/8/11 5:10	90.9	5.86		0.00		-2.28	-34.83
101	MO-11-10760 1 8-23-2011	24/8/11 5:15	91.0	5.92		0.00		-2.41	-34.76
102	MO-11-10824 1 8-23-2011	24/8/11 5:21	91.0	5.81		0.00		-2.36	-35.57
103	PU-11-13928 1 8-23-2011	24/8/11 5:26	91.0	5.65		0.00		-2.29	-34.70

104	DoubleDI-14 8-23-2011.raw	24/8/11 5:31	90.9	5.83	0.00	-2.05	-34.74
105	AN-11-13955 1 8-23-2011.	24/8/11 5:37	91.0	5.75	0.00	-2.32	-35.24
106	PU-11-13932 1 8-23-2011.	24/8/11 5:42	90.9	5.90	0.00	-2.45	-34.82
107	AN-11-13959 1 8-23-2011.	24/8/11 5:47	91.0	5.79	0.00	-2.34	-35.49
108	WA-11-14624 1 8-23-2011.	24/8/11 5:53	91.0	5.88	0.00	-2.27	-36.06
109	PA-11-23043 1 8-23-2011.	24/8/11 5:58	90.9	5.89	0.00	-2.82	-34.90
110	DoubleDI-15 8-23-2011.raw	24/8/11 6:03	91.0	5.47	0.00	-2.09	-34.55
111	PA-11-23047 1 8-23-2011.	24/8/11 6:09	91.0	5.82	0.00	-2.79	-34.82
112	ion GGRL June 2011 8-23	24/8/11 6:14	91.0	5.91	0.00	-3.53	-26.68
113	ion GGRL July 2011 8-23	24/8/11 6:19	91.0	5.78	0.00	-2.09	-27.42
114	n GGRL June 2011 dup 8-2	24/8/11 6:25	91.0	5.89	0.00	-3.51	-26.56
115	n GGRL July 2011 dup 8-2	24/8/11 6:30	91.1	5.86	0.00	-2.04	-27.65
116	DoubleDI-16 8-23-2011.raw	24/8/11 6:35	91.1	5.95	0.00	-2.00	-34.50
117	enne I III Well 11436 dup 8-2	24/8/11 6:41	91.2	5.95	0.00	-2.78	-31.40
118	Morales Domestic dup 8-23	24/8/11 6:46	91.2	5.19	0.00	-2.75	-31.55
119	GGRL April May 2011 lcs 8	24/8/11 6:51	91.1	5.92	0.00	-2.21	-34.81
120	Ginnie-2 8-23-2011.raw	24/8/11 6:57	91.1	5.83	0.00	-2.21	-27.46
121	PahPow-2 8-23-2011.raw	24/8/11 7:02	91.0	5.77	0.00	-2.02	-40.08
122	Rufina-2 8-23-2011.raw	24/8/11 7:08	91.1	5.84	0.00	-2.17	-35.84
123	UncleBud-2 8-23-2011.raw	24/8/11 7:13	91.1	5.86	0.00	-2.11	-44.60

MF waters
Vial #

8-23-2011
Sample Name

Storage Location

1	air-1		
2	air-2		
3	air-3		
4	Ginnie-1		
5	PahPow-1		
6	Rufina-1		
7	UncleBud-1		
8	DoubleDI-1		
9	DoubleDI-2		
10	DoubleDI-3		
11	DoubleDI-4		
12	DoubleDI-5		
13	DoubleDI-6		
14	DoubleDI-7		
15	DoubleDI-8		
16	DoubleDI-9		
17	DoubleDI-10		
18	Dairy Cheyenne I III Well 11436		FB06
19	Dairy 167 Morales Domestic		FB07
20	CAPA-11-23035	1	BA05
21	CAPA-11-23039	1	BA06
22	CAPA-11-23024	1	BA08
23	DoubleDI-11		
24	CAPA-11-23022	1	BA09
25	CAPA-11-22978	1	BB01
26	CAPA-11-23029	1	BB02
27	CAPA-11-23032	1	BB03
28	CASA-11-10823	1	BB07
29	DoubleDI-12		
30	CAPA-11-22851	1	BC08
31	CAPA-11-23020	1	BC09
32	CAPA-11-22871	1	BC10
33	CAPA-11-22876	1	BD01
34	CAMO-11-24681	1	BD02
35	DoubleDI-13		
36	CAMO-11-24650	1	BD03
37	CAMO-11-10755	1	EA04
38	CAMO-11-10760	1	EA07
39	CAMO-11-10824	1	EA09
40	CAPU-11-13928	1	EB01
41	DoubleDI-14		
42	CAAN-11-13955	1	ED07
43	CAPU-11-13932	1	ED08
44	CAAN-11-13959	1	EE02
45	CAWA-11-14624	1	EE04
46	CAPA-11-23043	1	EE05
47	DoubleDI-15		
48	CAPA-11-23047	1	EE10
49	Precipitation GGRL June 2011		Fridge
50	Precipitation GGRL July 2011		Fridge
51	Precipitation GGRL June 2011	dup	Fridge
52	Precipitation GGRL July 2011	dup	Fridge
53	DoubleDI-16		
54	Dairy Cheyenne I III Well 11436	dup	FB06
55	Dairy 167 Morales Domestic	dup	FB07
56	Precipitation GGRL April May 2011	ics	Fridge
57	Ginnie-2		
58	PahPow-2		
59	Rufina-2		
60	UncleBud-2		

Stable Isotope CF Analysis Results



File: CO2 Stability Test 8-23-2011.raw Acquisition Date: 23/8/11 12:54
 Project: Multiflow New.PRO Weight: 0.00
 Sample list: Ref gas stability template.spl Injection Volume: 0
 Line: 4 Bottle: 2
 MS file: CO2 ref gas stability Type:
 Inlet: MultiFlow Standard:
 Inlet file: Ref gas stability Slot Number: JB118
 Sample ID: Run Index:
 Description:

Reference standard	Corrections
Species: CO2 by CF (uncalibrated) Gas: CO2 Uncalibrated CO2 Ratio type: Elemental Deconvolution: Craig Elemental delta Label: Value: Molecular delta Label: Value: wrt: Ratio 1: 13C -2.6 delta 45 -3.54 PDB Ratio 2: 18O -35 delta 46 -34.97 SMOW	Equilibrium correction: None

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	3.64	29.3	1.2098E-02	4.1589E-03
2	3.64	89.3	1.2097E-02	4.1578E-03
3	3.64	149.3	1.2097E-02	4.1570E-03
4	3.64	209.3	1.2096E-02	4.1563E-03
5	3.63	269.3	1.2096E-02	4.1561E-03
6	3.64	329.3	1.2095E-02	4.1557E-03
7	3.64	389.3	1.2095E-02	4.1555E-03
8	3.63	449.3	1.2095E-02	4.1555E-03
9	3.64	509.3	1.2094E-02	4.1551E-03
10	3.64	569.3	1.2095E-02	4.1550E-03

Mean: 1.2096E-02 4.1563E-03
 Std Dev of fit (%): 0.03 0.12

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 13C	Ratio 46/44	Raw Delta	delta 18O
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Stable Isotope CF Analysis Results



File: CO2 Stability Test 8-23-2011.raw
Project: Multiflow New.PRO
Sample list: Ref gas stability template.spl
Line: 4
MS file: CO2 ref gas stability
Inlet: MultiFlow
Inlet file: Ref gas stability
Sample ID:
Description:

Acquisition Date: 23/8/11 13:05
Weight: 0.00
Injection Volume: 0
Bottle: 2
Type:
Standard:
Slot Number: JB118
Run Index:

Reference standard					Corrections
Species: CO2 by CF (uncalibrated)					Equilibrium correction: None
Gas: CO2 Uncalibrated CO2					
Ratio type: Elemental					
Deconvolution: Craig					
Elemental delta					
Label:		Value:	Label:	Value:	wrt:
Ratio 1:	13C	-2.6	delta 45	-3.54	PDB
Ratio 2:	18O	-35	delta 46	-34.97	SMOW

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 45/44	Ratio 46/44
1	1.07	29.3	1.2102E-02	4.1635E-03
2	1.08	89.3	1.2102E-02	4.1635E-03
3	1.77	149.3	1.2101E-02	4.1627E-03
4	2.27	209.3	1.2100E-02	4.1618E-03
5	2.67	269.3	1.2100E-02	4.1616E-03
6	3.36	329.3	1.2100E-02	4.1609E-03
7	3.92	389.3	1.2100E-02	4.1602E-03
8	4.49	449.3	1.2100E-02	4.1597E-03
9	4.97	509.3	1.2100E-02	4.1593E-03
10	4.96	569.3	1.2100E-02	4.1593E-03

Mean: 1.2100E-02 4.1612E-03
Std Dev of fit (%): 0.04 0.06

Sample Data

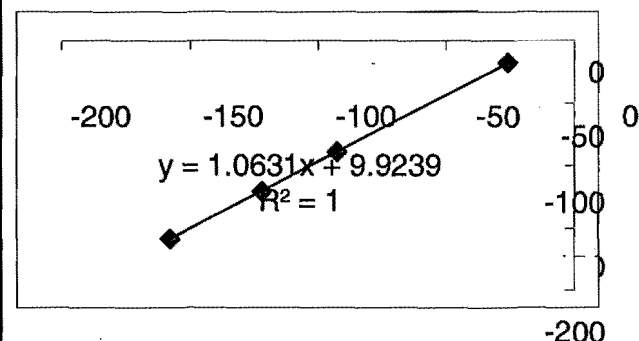
Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 45/44	Raw Delta	delta 13C	Ratio 46/44	Raw Delta	delta 18O
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EA δ D-water calibrated data

Date: 26-Aug-11
 Operator: George Perkins
 Isoprime data file: dD waters-8-26-2011
 MS file:

Generation of calibration curve:		δ D Value	
		actual	raw
CSLA		-120.08	-122.22
VASA		-17.73	
DCSLA		-143.06	
Ginnie		-17.41	-25.84
Mountain Mist		-95.03	
Rufina		-88.86	-92.79
House DI		-75.6	
Pawpow		-120.08	-122.11
Hawaii			
SLAP		-428	
Uncle Bud		-157.89	-158.10
GISP		-190.4	
smow		0	
2,4,6		1.25	
3,4,7		-399.1	
δ D=		slope	b-int.
		1.063	+
Drift corr.		0.000	9.924



Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δ D	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
dD waters 6-17-2011										
16	DoubleDI-1-1 20110826.raw	168.4	7.42	-80.53	-75.69	-75.69				
17	DoubleDI-1-2 20110826.raw	169.3	7.23	-79.87	-74.98	-74.98				
18	DoubleDI-1-3 20110826.raw	169.2	7.18	-79.03	-74.09	-74.09				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
19	DoubleDI-1-4 20110826.raw	168.1	7.77	-78.88	-73.93	-73.93				
20	DoubleDI-1-5 20110826.raw	169.3	7.22	-79.77	-74.88	-74.88		-74.47	-74.47	0.54
21	Pawpow-1-1 20110826.raw	171.1	7.17	-121.15	-118.87	-118.87				
22	Pawpow-1-2 20110826.raw	171.2	7.07	-122.71	-120.53	-120.53				
23	Pawpow-1-3 20110826.raw	171.4	6.50	-123.80	-121.68	-121.68				
24	Pawpow-1-4 20110826.raw	171.6	6.39	-123.26	-121.11	-121.11				
25	Pawpow-1-5 20110826.raw	171.2	7.12	-123.58	-121.45	-121.45		-121.20	-121.20	0.50
26	CSLA-1-1 20110826.raw	173.1	7.11	-122.26	-120.05	-120.05				
27	CSLA-1-2 20110826.raw	172.9	7.18	-123.20	-121.06	-121.06				
28	CSLA-1-3 20110826.raw	173.2	7.09	-122.74	-120.56	-120.56				
29	CSLA-1-4 20110826.raw	173.0	7.21	-122.97	-120.81	-120.81				
30	CSLA-1-5 20110826.raw	173.2	7.21	-122.79	-120.61	-120.61		-120.76	-120.76	0.22
31	UncleBud-1-1 20110826.raw	174.7	7.18	-158.30	-158.36	-158.36				
32	UncleBud-1-2 20110826.raw	175.2	6.86	-159.35	-159.49	-159.49				
33	UncleBud-1-3 20110826.raw	175.0	7.09	-159.61	-159.76	-159.76				
34	UncleBud-1-4 20110826.raw	175.3	5.94	-160.30	-160.49	-160.49				
35	UncleBud-1-5 20110826.raw	174.7	7.21	-158.75	-158.85	-158.85		-159.65	-159.65	0.68
36	Rufina-1-1 20110826.raw	175.8	7.44	-94.74	-90.79	-90.79				
37	Rufina-1-2 20110826.raw	176.1	7.20	-93.55	-89.53	-89.53				
38	Rufina-1-3 20110826.raw	176.8	6.92	-94.05	-90.06	-90.06				
39	Rufina-1-4 20110826.raw	176.7	7.17	-92.78	-88.71	-88.71				
40	Rufina-1-5 20110826.raw	176.2	7.20	-92.01	-87.90	-87.90		-89.05	-89.05	0.95
41	Ginnie-1-1 20110826.raw	178.5	6.92	-28.67	-20.56	-20.56				
42	Ginnie-1-2 20110826.raw	178.0	6.98	-26.36	-18.10	-18.10				
43	Ginnie-1-3 20110826.raw	177.9	7.08	-26.82	-18.59	-18.59				
44	Ginnie-1-4 20110826.raw	178.7	6.76	-27.47	-19.28	-19.28				
45	Ginnie-1-5 20110826.raw	178.7	7.03	-25.59	-17.29	-17.29		-18.31	-18.31	0.84
46	DoubleDI-2-1 20110826.raw	169.6	7.20	-78.94	-74.00	-74.00				
47	DoubleDI-2-2 20110826.raw	169.3	6.83	-81.63	-76.85	-76.85				
48	DoubleDI-2-3 20110826.raw	167.7	8.49	-77.43	-72.39	-72.39				
49	DoubleDI-2-4 20110826.raw	168.8	7.25	-79.99	-75.11	-75.11				
50	DoubleDI-2-5 20110826.raw	169.0	7.17	-80.40	-75.55	-75.55		-74.98	-74.98	1.87
51	Dairy Willis Well #2 (South Well)-1 20110826.raw	171.0	7.28	-61.02	-54.94	-54.94				
52	Dairy Willis Well #2 (South Well)-2 20110826.raw	170.8	7.48	-58.02	-51.75	-51.75				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
53	Dairy Willis Well #2 (South Well)-3 20110826.raw	170.8	7.46	-59.52	-53.35	-53.35		-52.55	-52.55	1.13
54	126 New Horizon MW3-1 20110826.raw	169.5	7.42	-57.17	-50.85	-50.85				
55	126 New Horizon MW3-2 20110826.raw	168.9	7.41	-57.77	-51.49	-51.49				
56	126 New Horizon MW3-3 20110826.raw	168.9	7.43	-57.57	-51.28	-51.28		-51.39	-51.39	0.15
57	Dairy Cheyenne I III Well 11436-1 20110826.raw	170.8	7.40	-56.91	-50.58	-50.58				
58	Dairy Cheyenne I III Well 11436-2 20110826.raw	170.4	7.38	-58.92	-52.72	-52.72				
59	Dairy Cheyenne I III Well 11436-3 20110826.raw	170.8	7.45	-57.93	-51.67	-51.67		-52.19	-52.19	0.74
60	Dairy 167 Morales Domestic-1 20110826.raw	169.5	7.46	-59.76	-53.61	-53.61				
61	Dairy 167 Morales Domestic-2 20110826.raw	168.6	7.52	-58.72	-52.50	-52.50				
62	Dairy 167 Morales Domestic-3 20110826.raw	168.8	7.51	-59.59	-53.42	-53.42		-52.96	-52.96	0.65
63	Precipitation GGRL July 2011-1 20110826.raw	170.4	7.96	-37.26	-29.69	-29.69				
64	Precipitation GGRL July 2011-2 20110826.raw	170.9	7.64	-35.26	-27.56	-27.56				
65	Precipitation GGRL July 2011-3 20110826.raw	170.8	7.68	-35.12	-27.41	-27.41		-27.49	-27.49	0.11
66	DoubleDI-3-1 20110826.raw	172.5	7.60	-77.84	-72.83	-72.83				
67	DoubleDI-3-2 20110826.raw	172.4	7.60	-78.59	-73.63	-73.63				
68	DoubleDI-3-3 20110826.raw	172.5	7.52	-79.64	-74.74	-74.74		-74.18	-74.18	0.78
69	Precipitation GGRL June 2011-1 20110826.raw	174.3	7.68	-42.74	-35.52	-35.52				
70	Precipitation GGRL June 2011-2 20110826.raw	174.5	7.78	-42.04	-34.77	-34.77				
71	Precipitation GGRL June 2011-3 20110826.raw	173.6	8.36	-41.52	-34.21	-34.21		-34.49	-34.49	0.39
72	CAWR-10-25326-1 20110826.raw	175.6	7.90	-78.70	-73.74	-73.74				
73	CAWR-10-25326-2 20110826.raw	175.7	7.87	-78.32	-73.34	-73.34				
74	CAWR-10-25326-3 20110826.raw	176.2	7.67	-78.72	-73.76	-73.76		-73.55	-73.55	0.29
75	CAWR-10-25401-1 20110826.raw	178.2	7.64	-81.53	-76.75	-76.75				
76	CAWR-10-25401-2 20110826.raw	178.2	7.53	-81.65	-76.87	-76.87				
77	CAWR-10-25401-3 20110826.raw	178.3	7.41	-82.27	-77.54	-77.54		-77.20	-77.20	0.47
78	CAPA-11-23035-1 20110826.raw	169.4	7.69	-81.76	-76.99	-76.99				
79	CAPA-11-23035-2 20110826.raw	168.8	7.61	-81.51	-76.73	-76.73				
80	CAPA-11-23035-3 20110826.raw	168.7	7.64	-78.46	-73.49	-73.49		-75.11	-75.11	2.30
81	CAPA-11-23039-1 20110826.raw	170.7	7.74	-80.39	-75.54	-75.54				
82	CAPA-11-23039-2 20110826.raw	170.7	7.72	-81.78	-77.02	-77.02				
83	CAPA-11-23039-3 20110826.raw	170.7	7.72	-82.22	-77.48	-77.48		-77.25	-77.25	0.33
84	DoubleDI-4-1 20110826.raw	169.4	7.74	-78.18	-73.19	-73.19				
85	DoubleDI-4-2 20110826.raw	167.8	8.47	-77.94	-72.94	-72.94				
86	DoubleDI-4-3 20110826.raw	168.8	7.70	-79.54	-74.64	-74.64		-73.79	-73.79	1.20

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. dD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
87	CAPA-11-4722-1 20110826.raw	170.7	7.51	-83.04	-78.35	-78.35				
88	CAPA-11-4722-2 20110826.raw	170.7	7.55	-82.81	-78.11	-78.11				
89	CAPA-11-4722-3 20110826.raw	170.7	7.53	-82.07	-77.32	-77.32		-77.71	-77.71	0.56
90	CAPA-11-23024-1 20110826.raw	169.4	7.76	-80.06	-75.19	-75.19				
91	CAPA-11-23024-2 20110826.raw	168.8	7.54	-80.94	-76.13	-76.13				
92	CAPA-11-23024-3 20110826.raw	168.6	7.66	-80.74	-75.91	-75.91		-76.02	-76.02	0.15
93	CAPA-11-23022-1 20110826.raw	170.6	7.67	-81.61	-76.84	-76.84				
94	CAPA-11-23022-2 20110826.raw	170.7	7.74	-80.21	-75.35	-75.35				
95	CAPA-11-23022-3 20110826.raw	170.7	7.74	-80.35	-75.50	-75.50		-75.42	-75.42	0.10
96	CAMO-11-4644-1 20110826.raw	172.6	7.68	-80.67	-75.83	-75.83				
97	CAMO-11-4644-2 20110826.raw	172.4	7.69	-81.22	-76.42	-76.42				
98	CAMO-11-4644-3 20110826.raw	172.5	7.71	-80.73	-75.90	-75.90		-76.16	-76.16	0.37
99	CAPA-11-22978-1 20110826.raw	174.6	7.68	-80.54	-75.70	-75.70				
100	CAPA-11-22978-2 20110826.raw	174.4	7.65	-81.55	-76.77	-76.77				
101	CAPA-11-22978-3 20110826.raw	174.4	7.66	-81.20	-76.40	-76.40		-76.58	-76.58	0.26
102	DoubleDI-5-1 20110826.raw	176.2	7.52	-79.86	-74.97	-74.97				
103	DoubleDI-5-2 20110826.raw	176.0	7.69	-79.45	-74.54	-74.54				
104	DoubleDI-5-3 20110826.raw	176.1	7.61	-77.72	-72.70	-72.70		-73.62	-73.62	1.30
105	CAPA-11-23029-1 20110826.raw	178.2	7.60	-81.45	-76.67	-76.67				
106	CAPA-11-23029-2 20110826.raw	178.0	7.63	-82.96	-78.27	-78.27				
107	CAPA-11-23029-3 20110826.raw	178.2	7.68	-81.97	-77.22	-77.22		-77.75	-77.75	0.75
108	CAPA-11-23032-1 20110826.raw	169.3	7.59	-83.03	-78.34	-78.34				
109	CAPA-11-23032-2 20110826.raw	168.1	7.89	-81.92	-77.17	-77.17				
110	CAPA-11-23032-3 20110826.raw	168.8	7.48	-83.05	-78.36	-78.36		-77.76	-77.76	0.85
111	CAAN-11-5489-1 20110826.raw	170.4	7.61	-85.71	-81.19	-81.19				
112	CAAN-11-5489-2 20110826.raw	170.6	7.62	-83.86	-79.22	-79.22				
113	CAAN-11-5489-3 20110826.raw	170.6	7.62	-83.82	-79.18	-79.18		-79.20	-79.20	0.03
114	CASA-11-10823-1 20110826.raw	169.1	7.60	-84.53	-79.94	-79.94				
115	CASA-11-10823-2 20110826.raw	168.5	7.80	-85.13	-80.58	-80.58				
116	CASA-11-10823-3 20110826.raw	168.5	7.81	-85.02	-80.46	-80.46		-80.52	-80.52	0.08
117	CALA-11-5183-1 20110826.raw	170.5	7.67	-77.93	-72.92	-72.92				
118	CALA-11-5183-2 20110826.raw	170.4	7.83	-77.46	-72.42	-72.42				
119	CALA-11-5183-3 20110826.raw	170.5	7.87	-77.83	-72.82	-72.82		-72.62	-72.62	0.28
120	DoubleDI-6-1 20110826.raw	169.4	7.82	-78.81	-73.86	-73.86				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. dD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
121	DoubleDI-6-2 20110826.raw	168.8	7.57	-80.33	-75.48	-75.48				
122	DoubleDI-6-3 20110826.raw	168.8	7.59	-79.62	-74.72	-74.72		-75.10	-75.10	0.53
123	CALA-11-5188-1 20110826.raw	170.7	7.49	-79.76	-74.87	-74.87				
124	CALA-11-5188-2 20110826.raw	170.7	7.56	-79.55	-74.64	-74.64				
125	CALA-11-5188-3 20110826.raw	170.6	7.84	-79.12	-74.19	-74.19		-74.42	-74.42	0.32
126	CAWR-10-25455-1 20110826.raw	172.5	7.82	-78.53	-73.56	-73.56				
127	CAWR-10-25455-2 20110826.raw	172.5	7.91	-79.02	-74.08	-74.08				
128	CAWR-10-25455-3 20110826.raw	172.5	7.88	-79.23	-74.30	-74.30		-74.19	-74.19	0.16
129	CAPA-11-22851-1 20110826.raw	174.5	7.55	-82.45	-77.73	-77.73				
130	CAPA-11-22851-2 20110826.raw	174.2	7.90	-83.89	-79.26	-79.26				
131	CAPA-11-22851-3 20110826.raw	174.2	7.89	-83.81	-79.17	-79.17		-79.21	-79.21	0.06
132	CAPA-11-23020-1 20110826.raw	176.2	7.73	-82.85	-78.16	-78.16				
133	CAPA-11-23020-2 20110826.raw	176.1	7.62	-82.20	-77.47	-77.47				
134	CAPA-11-23020-3 20110826.raw	176.1	7.83	-83.20	-78.53	-78.53		-78.00	-78.00	0.75
135	CAPA-11-22871-1 20110826.raw	177.9	7.95	-83.42	-78.76	-78.76				
136	CAPA-11-22871-2 20110826.raw	178.1	7.90	-82.24	-77.50	-77.50				
137	CAPA-11-22871-3 20110826.raw	178.2	7.64	-83.24	-78.57	-78.57		-78.04	-78.04	0.76
138	DoubleDI-7-1 20110826.raw	169.4	7.94	-79.60	-74.70	-74.70				
139	DoubleDI-7-2 20110826.raw	168.7	7.88	-78.60	-73.64	-73.64				
140	DoubleDI-7-3 20110826.raw	168.7	7.91	-78.69	-73.73	-73.73		-73.69	-73.69	0.06
141	CAPA-11-22876-1 20110826.raw	170.4	7.85	-82.65	-77.95	-77.95				
142	CAPA-11-22876-2 20110826.raw	170.6	7.85	-82.39	-77.67	-77.67				
143	CAPA-11-22876-3 20110826.raw	170.4	7.94	-83.22	-78.55	-78.55		-78.11	-78.11	0.62
144	CAMO-11-24681-1 20110826.raw	169.1	7.92	-83.24	-78.57	-78.57				
145	CAMO-11-24681-2 20110826.raw	168.6	7.93	-83.24	-78.56	-78.56				
146	CAMO-11-24681-3 20110826.raw	168.7	7.96	-82.30	-77.57	-77.57		-78.07	-78.07	0.70
147	CAMO-11-24650-1 20110826.raw	170.6	7.97	-81.77	-77.01	-77.01				
148	CAMO-11-24650-2 20110826.raw	170.5	7.99	-80.64	-75.80	-75.80				
149	CAMO-11-24650-3 20110826.raw	170.5	8.01	-79.77	-74.88	-74.88		-75.34	-75.34	0.65
150	CAPA-11-9515-1 20110826.raw	169.3	7.96	-82.55	-77.83	-77.83				
151	CAPA-11-9515-2 20110826.raw	168.6	7.94	-81.92	-77.17	-77.17				
152	CAPA-11-9515-3 20110826.raw	168.5	7.98	-82.09	-77.34	-77.34		-77.25	-77.25	0.12
153	CAPA-11-9518-1 20110826.raw	170.3	7.95	-81.83	-77.07	-77.07				
154	CAPA-11-9518-2 20110826.raw	170.6	8.04	-82.40	-77.68	-77.68				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. dD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
155	CAPA-11-9518-3 20110826.raw	170.5	7.90	-81.68	-76.91	-76.91		-77.29	-77.29	0.54
156	DoubleDI-8-1 20110826.raw	172.4	8.04	-79.57	-74.67	-74.67				
157	DoubleDI-8-2 20110826.raw	172.4	7.71	-79.90	-75.02	-75.02				
158	DoubleDI-8-3 20110826.raw	172.2	7.98	-78.40	-73.43	-73.43		-74.22	-74.22	1.12
159	CAPA-11-10606-1 20110826.raw	174.3	7.53	-80.55	-75.71	-75.71				
160	CAPA-11-10606-2 20110826.raw	174.0	7.86	-79.75	-74.86	-74.86				
161	CAPA-11-10606-3 20110826.raw	174.3	7.59	-81.81	-77.04	-77.04		-75.95	-75.95	1.54
162	CAMO-11-10755-1 20110826.raw	176.0	7.95	-80.92	-76.11	-76.11				
163	CAMO-11-10755-2 20110826.raw	176.3	7.60	-81.71	-76.94	-76.94				
164	CAMO-11-10755-3 20110826.raw	176.3	7.58	-80.78	-75.95	-75.95		-76.45	-76.45	0.70
165	CAMO-11-10720-1 20110826.raw	178.1	7.58	-81.60	-76.82	-76.82				
166	CAMO-11-10720-2 20110826.raw	178.0	7.68	-82.31	-77.58	-77.58				
167	CAMO-11-10720-3 20110826.raw	177.9	7.71	-81.92	-77.16	-77.16		-77.37	-77.37	0.29
168	CAMO-11-10726-1 20110826.raw	169.3	7.54	-81.83	-77.07	-77.07				
169	CAMO-11-10726-2 20110826.raw	169.0	6.52	-82.35	-77.62	-77.62				
170	CAMO-11-10726-3 20110826.raw	169.0	7.52	-81.27	-76.48	-76.48		-77.05	-77.05	0.81
171	CAMO-11-10760-1 20110826.raw	170.5	7.79	-81.30	-76.51	-76.51				
172	CAMO-11-10760-2 20110826.raw	170.7	7.40	-80.18	-75.32	-75.32				
173	CAMO-11-10760-3 20110826.raw	170.9	7.28	-81.19	-76.39	-76.39		-75.85	-75.85	0.76
174	DoubleDI-9-1 20110826.raw	169.3	7.78	-80.29	-75.43	-75.43				
175	DoubleDI-9-2 20110826.raw	168.9	7.51	-79.32	-74.40	-74.40				
176	DoubleDI-9-3 20110826.raw	169.1	7.55	-78.35	-73.37	-73.37		-73.89	-73.89	0.73
177	CAMO-11-10771-1 20110826.raw	170.6	7.94	-80.86	-76.03	-76.03				
178	CAMO-11-10771-2 20110826.raw	170.4	7.89	-81.37	-76.58	-76.58				
179	CAMO-11-10771-3 20110826.raw	170.7	7.66	-81.57	-76.79	-76.79		-76.69	-76.69	0.15
180	CAMO-11-10824-1 20110826.raw	180.4	7.97	-85.06	-80.50	-80.50				
181	CAMO-11-10824-2 20110826.raw	168.9	7.37	-87.23	-82.81	-82.81				
182	CAMO-11-10824-3 20110826.raw	168.0	7.95	-87.61	-83.21	-83.21		-83.01	-83.01	0.28
183	CAMO-11-10852-1 20110826.raw	170.5	7.74	-81.30	-76.51	-76.51				
184	CAMO-11-10852-2 20110826.raw	170.6	7.73	-83.06	-78.38	-78.38				
185	CAMO-11-10852-3 20110826.raw	171.0	7.34	-82.84	-78.14	-78.14		-78.26	-78.26	0.17
186	CAPU-11-13928-1 20110826.raw	171.7	8.01	-80.59	-75.75	-75.75				
187	CAPU-11-13928-2 20110826.raw	172.8	7.44	-83.17	-78.50	-78.50				
188	CAPU-11-13928-3 20110826.raw	172.5	7.49	-81.53	-76.76	-76.76		-77.63	-77.63	1.23

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
189	CAWA-11-7035-1 20110826.raw	173.7	7.71	-85.97	-81.47	-81.47				
190	CAWA-11-7035-2 20110826.raw	174.0	7.93	-85.41	-80.88	-80.88				
191	CAWA-11-7035-3 20110826.raw	174.1	7.89	-85.38	-80.84	-80.84		-80.86	-80.86	0.03
192	DoubleDI-10-1 20110826.raw	176.2	7.42	-80.88	-76.06	-76.06				
193	DoubleDI-10-2 20110826.raw	175.8	7.97	-79.07	-74.13	-74.13				
194	DoubleDI-10-3 20110826.raw	175.8	7.87	-79.48	-74.57	-74.57		-74.35	-74.35	0.31
195	CAPA-11-9500-1 20110826.raw	177.7	7.80	-83.84	-79.20	-79.20				
196	CAPA-11-9500-2 20110826.raw	177.8	7.94	-83.55	-78.89	-78.89				
197	CAPA-11-9500-3 20110826.raw	177.8	7.91	-83.99	-79.37	-79.37		-79.13	-79.13	0.33
198	CAPA-11-9325-1 20110826.raw	169.3	7.62	-83.80	-79.16	-79.16				
199	CAPA-11-9325-2 20110826.raw	168.4	7.96	-82.34	-77.61	-77.61				
200	CAPA-11-9325-3 20110826.raw	168.4	7.92	-82.95	-78.26	-78.26		-77.94	-77.94	0.46
201	CAPA-11-9483-1 20110826.raw	170.5	7.57	-83.65	-79.01	-79.01				
202	CAPA-11-9483-2 20110826.raw	169.3	9.58	-80.02	-75.15	-75.15				
203	CAPA-11-9483-3 20110826.raw	170.7	7.37	-84.21	-79.59	-79.59		-77.37	-77.37	3.15
204	CAPA-11-9491-1 20110826.raw	169.4	7.37	-83.84	-79.21	-79.21				
205	CAPA-11-9491-2 20110826.raw	168.4	7.86	-82.00	-77.25	-77.25				
206	CAPA-11-9491-3 20110826.raw	168.4	7.95	-81.86	-77.10	-77.10		-77.17	-77.17	0.11
207	CAWA-10-25851-1 20110826.raw	170.2	7.88	-87.81	-83.43	-83.43				
208	CAWA-10-25851-2 20110826.raw	170.2	7.76	-89.08	-84.78	-84.78				
209	CAWA-10-25851-3 20110826.raw	170.5	7.80	-87.90	-83.52	-83.52		-84.15	-84.15	0.89
210	DoubleDI-11-1 20110826.raw	169.4	7.55	-79.23	-74.30	-74.30				
211	DoubleDI-11-2 20110826.raw	168.5	7.56	-80.10	-75.23	-75.23				
212	DoubleDI-11-3 20110826.raw	168.6	7.52	-80.08	-75.21	-75.21		-75.22	-75.22	0.02
213	CAWA-11-6881-1 20110826.raw	170.4	7.56	-85.35	-80.82	-80.82				
214	CAWA-11-6881-2 20110826.raw	170.2	7.66	-84.97	-80.41	-80.41				
215	CAWA-11-6881-3 20110826.raw	170.4	7.59	-86.08	-81.59	-81.59		-81.00	-81.00	0.84
216	CAPA-11-9405-1 20110826.raw	172.3	7.64	-82.56	-77.85	-77.85				
217	CAPA-11-9405-2 20110826.raw	172.3	7.54	-82.72	-78.02	-78.02				
218	CAPA-11-9405-3 20110826.raw	172.6	7.45	-83.37	-78.70	-78.70		-78.36	-78.36	0.48
219	CAPA-11-9446-1 20110826.raw	174.1	7.59	-84.88	-80.31	-80.31				
220	CAPA-11-9446-2 20110826.raw	174.1	7.52	-84.66	-80.08	-80.08				
221	CAPA-11-9446-3 20110826.raw	174.1	7.55	-83.87	-79.24	-79.24		-79.66	-79.66	0.59
222	CAWA-11-6931-1 20110826.raw	176.0	7.61	-85.55	-81.02	-81.02				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. dD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
223	CAWA-11-6931-2 20110826.raw	176.2	7.55	-85.68	-81.16	-81.16				
224	CAWA-11-6931-3 20110826.raw	175.7	7.66	-86.02	-81.53	-81.53		-81.35	-81.35	0.26
225	CAPA-11-9508-1 20110826.raw	177.8	7.99	-78.33	-73.35	-73.35				
226	CAPA-11-9508-2 20110826.raw	178.0	7.60	-81.07	-76.26	-76.26				
227	CAPA-11-9508-3 20110826.raw	178.0	7.55	-81.06	-76.25	-76.25		-76.26	-76.26	0.00
228	DoubleDI-12-1 20110826.raw	169.2	7.56	-80.16	-75.29	-75.29				
229	DoubleDI-12-2 20110826.raw	168.7	7.60	-78.77	-73.81	-73.81				
230	DoubleDI-12-3 20110826.raw	168.9	7.49	-79.27	-74.35	-74.35		-74.08	-74.08	0.38
231	CAPA-11-9505-1 20110826.raw	170.5	7.51	-79.79	-74.90	-74.90				
232	CAPA-11-9505-2 20110826.raw	170.2	7.49	-81.57	-76.79	-76.79				
233	CAPA-11-9505-3 20110826.raw	170.6	7.57	-80.67	-75.83	-75.83		-76.31	-76.31	0.68
234	CAPA-11-9499-1 20110826.raw	168.8	10.47	-74.60	-69.38	-69.38				
235	CAPA-11-9499-2 20110826.raw	168.5	7.42	-82.01	-77.26	-77.26				
236	CAPA-11-9499-3 20110826.raw	168.3	7.87	-82.49	-77.77	-77.77		-77.52	-77.52	0.36
237	CAPA-11-9475-1 20110826.raw	170.1	7.87	-82.97	-78.29	-78.29				
238	CAPA-11-9475-2 20110826.raw	170.4	7.57	-81.57	-76.80	-76.80				
239	CAPA-11-9475-3 20110826.raw	170.7	7.51	-82.83	-78.14	-78.14		-77.47	-77.47	0.95
240	CAPA-11-9464-1 20110826.raw	168.9	8.05	-80.62	-75.78	-75.78				
241	CAPA-11-9464-2 20110826.raw	167.9	7.93	-81.41	-76.63	-76.63				
242	CAPA-11-9464-3 20110826.raw	168.3	8.07	-80.91	-76.10	-76.10		-76.36	-76.36	0.38
243	CAPA-11-9378-1 20110826.raw	170.0	8.05	-82.44	-77.71	-77.71				
244	CAPA-11-9378-2 20110826.raw	170.0	7.90	-82.09	-77.34	-77.34				
245	CAPA-11-9378-3 20110826.raw	170.0	8.08	-81.61	-76.84	-76.84		-77.09	-77.09	0.36
246	DoubleDI-13-1 20110826.raw	171.9	8.00	-79.84	-74.96	-74.96				
247	DoubleDI-13-2 20110826.raw	172.1	7.95	-79.47	-74.56	-74.56				
248	DoubleDI-13-3 20110826.raw	172.0	8.03	-79.49	-74.59	-74.59		-74.57	-74.57	0.02
249	CAPA-11-9366-1 20110826.raw	174.1	7.63	-82.74	-78.04	-78.04				
250	CAPA-11-9366-2 20110826.raw	174.1	7.67	-83.45	-78.80	-78.80				
251	CAPA-11-9366-3 20110826.raw	173.9	8.03	-82.73	-78.02	-78.02		-78.41	-78.41	0.55
252	CAPA-11-9318-1 20110826.raw	175.7	7.99	-81.37	-76.58	-76.58				
253	CAPA-11-9318-2 20110826.raw	175.7	8.03	-81.68	-76.91	-76.91				
254	CAPA-11-9318-3 20110826.raw	175.6	8.00	-82.33	-77.60	-77.60		-77.25	-77.25	0.49
255	CAAN-11-13955-1 20110826.raw	178.1	7.43	-84.66	-80.08	-80.08				
256	CAAN-11-13955-2 20110826.raw	178.1	7.56	-83.66	-79.02	-79.02				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. dD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
257	CAAN-11-13955-3 20110826.raw	178.1	7.60	-83.96	-79.33	-79.33		-79.17	-79.17	0.22
258	CAPU-11-13932-1 20110826.raw	169.1	7.53	-80.93	-76.11	-76.11				
259	CAPU-11-13932-2 20110826.raw	168.6	7.48	-81.19	-76.39	-76.39				
260	CAPU-11-13932-3 20110826.raw	168.5	7.47	-81.08	-76.27	-76.27		-76.33	-76.33	0.09
261	CAPA-11-9298-1 20110826.raw	170.5	7.57	-83.65	-79.01	-79.01				
262	CAPA-11-9298-2 20110826.raw	170.1	7.98	-82.81	-78.11	-78.11				
263	CAPA-11-9298-3 20110826.raw	170.3	7.58	-83.64	-79.00	-79.00		-78.56	-78.56	0.62
264	DoubleDI-14-1 20110826.raw	169.2	7.54	-79.58	-74.68	-74.68				
265	DoubleDI-14-2 20110826.raw	168.7	7.51	-79.44	-74.53	-74.53				
266	DoubleDI-14-3 20110826.raw	168.2	8.07	-77.56	-72.53	-72.53		-73.53	-73.53	1.41
267	CAAN-11-13959-1 20110826.raw	170.2	8.12	-83.44	-78.79	-78.79				
268	CAAN-11-13959-2 20110826.raw	170.2	8.08	-83.40	-78.74	-78.74				
269	CAAN-11-13959-3 20110826.raw	169.7	7.59	-85.02	-80.46	-80.46		-79.60	-79.60	1.22
270	CAWA-11-14624-1 20110826.raw	169.6	7.62	-88.36	-84.01	-84.01				
271	CAWA-11-14624-2 20110826.raw	168.9	7.66	-88.58	-84.24	-84.24				
272	CAWA-11-14624-3 20110826.raw	169.2	7.37	-89.54	-85.27	-85.27		-84.75	-84.75	0.72
273	CAPA-11-23043-1 20110826.raw	170.7	7.51	-82.05	-77.30	-77.30				
274	CAPA-11-23043-2 20110826.raw	170.7	7.60	-82.81	-78.11	-78.11				
275	CAPA-11-23043-3 20110826.raw	170.9	7.46	-83.10	-78.42	-78.42		-78.27	-78.27	0.22
276	CAPA-11-9510-1 20110826.raw	172.6	7.49	-83.49	-78.83	-78.83				
277	CAPA-11-9510-2 20110826.raw	172.8	7.43	-82.30	-77.57	-77.57				
278	CAPA-11-9510-3 20110826.raw	172.8	7.35	-83.53	-78.88	-78.88		-78.23	-78.23	0.92
279	CAPA-11-9514-1 20110826.raw	174.6	7.32	-83.47	-78.81	-78.81				
280	CAPA-11-9514-2 20110826.raw	174.3	7.43	-83.28	-78.61	-78.61				
281	CAPA-11-9514-3 20110826.raw	174.6	7.26	-83.34	-78.68	-78.68		-78.64	-78.64	0.05
282	DoubleDI-15-1 20110826.raw	176.0	7.51	-80.02	-75.15	-75.15				
283	DoubleDI-15-2 20110826.raw	176.5	7.20	-81.09	-76.29	-76.29				
284	DoubleDI-15-3 20110826.raw	176.7	6.89	-80.54	-75.70	-75.70		-75.99	-75.99	0.41
285	CAMO-11-11689-1 20110826.raw	176.8	9.03	-78.99	-74.05	-74.05				
286	CAMO-11-11689-2 20110826.raw	178.1	7.59	-81.53	-76.75	-76.75				
287	CAMO-11-11689-3 20110826.raw	178.2	7.41	-81.74	-76.98	-76.98		-76.86	-76.86	0.16
288	CAMO-11-10752-1 20110826.raw	169.3	7.47	-83.63	-78.98	-78.98				
289	CAMO-11-10752-2 20110826.raw	168.7	7.47	-83.47	-78.81	-78.81				
290	CAMO-11-10752-3 20110826.raw	168.9	7.35	-83.62	-78.97	-78.97		-78.89	-78.89	0.11

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
291	CAPA-11-23047-1 20110826.raw	171.2	7.29	-82.00	-77.25	-77.25				
292	CAPA-11-23047-2 20110826.raw	170.4	7.67	-83.28	-78.61	-78.61				
293	CAPA-11-23047-3 20110826.raw	171.1	7.25	-82.36	-77.63	-77.63		-78.12	-78.12	0.69
294	Wry Willis Well #2 (South Well) dup-1 20110826.raw	169.0	7.98	-59.49	-53.32	-53.32				
295	Wry Willis Well #2 (South Well) dup-2 20110826.raw	169.0	7.38	-59.96	-53.82	-53.82				
296	Wry Willis Well #2 (South Well) dup-3 20110826.raw	169.0	7.32	-60.32	-54.20	-54.20		-54.01	-54.01	0.27
297	126 New Horizon MW3 dup-1 20110826.raw	170.4	7.66	-58.10	-51.84	-51.84				
298	126 New Horizon MW3 dup-2 20110826.raw	170.8	7.49	-57.69	-51.41	-51.41				
299	126 New Horizon MW3 dup-3 20110826.raw	171.1	6.91	-60.11	-53.98	-53.98		-52.69	-52.69	1.82
300	DoubleDI-16-1 20110826.raw	169.2	7.75	-78.41	-73.43	-73.43				
301	DoubleDI-16-2 20110826.raw	168.9	7.13	-79.76	-74.87	-74.87				
302	DoubleDI-16-3 20110826.raw	169.2	7.23	-79.77	-74.87	-74.87		-74.87	-74.87	0.00
303	Wry Cheyenne I III Well 11436 dup-1 20110826.raw	170.7	7.56	-59.80	-53.65	-53.65				
304	Wry Cheyenne I III Well 11436 dup-2 20110826.raw	170.8	7.43	-59.35	-53.17	-53.17				
305	Wry Cheyenne I III Well 11436 dup-3 20110826.raw	170.8	7.49	-59.45	-53.27	-53.27		-53.22	-53.22	0.07
306	precipitation GGRL July 2011 dup-1 20110826.raw	173.0	7.32	-36.81	-29.21	-29.21				
307	precipitation GGRL July 2011 dup-2 20110826.raw	172.7	7.56	-35.88	-28.23	-28.23				
308	precipitation GGRL July 2011 dup-3 20110826.raw	172.6	7.73	-36.25	-28.61	-28.61		-28.42	-28.42	0.27
309	precipitation GGRL June 2011 dup-1 20110826.raw	174.1	7.89	-42.20	-34.93	-34.93				
310	precipitation GGRL June 2011 dup-2 20110826.raw	173.9	7.97	-41.89	-34.61	-34.61				
311	precipitation GGRL June 2011 dup-3 20110826.raw	173.2	8.74	-41.14	-33.81	-33.81		-34.21	-34.21	0.56
312	Pawpow-2-1 20110826.raw	175.8	7.89	-116.79	-114.23	-114.23				
313	Pawpow-2-2 20110826.raw	175.7	7.93	-118.08	-115.61	-115.61				
314	Pawpow-2-3 20110826.raw	175.6	7.98	-121.54	-119.29	-119.29				
315	Pawpow-2-4 20110826.raw	175.8	7.95	-120.45	-118.13	-118.13				
316	Pawpow-2-5 20110826.raw	175.6	8.04	-120.04	-117.69	-117.69		-117.91	-117.91	0.31
317	CSLA-2-1 20110826.raw	177.5	7.93	-121.85	-119.61	-119.61				
318	CSLA-2-2 20110826.raw	177.7	8.01	-119.81	-117.44	-117.44				
319	CSLA-2-3 20110826.raw	177.9	7.84	-121.44	-119.18	-119.18				
320	CSLA-2-4 20110826.raw	177.8	7.85	-121.52	-119.27	-119.27				
321	CSLA-2-5 20110826.raw	177.6	7.77	-121.85	-119.62	-119.62		-119.44	-119.44	0.25
322	UncleBud-2-1 20110826.raw	169.0	7.85	-154.95	-154.80	-154.80				
323	UncleBud-2-2 20110826.raw	168.5	7.89	-156.71	-156.67	-156.67				
324	UncleBud-2-3 20110826.raw	168.4	7.92	-156.32	-156.25	-156.25				

Sample Number	Name	retention time	Height (mass 44)	Raw dD	Corr. δD	Drift corr. dD	Actual	avg dD nondrift	avg dD drift	stdev
325	UncleBud-2-4 20110826.raw	168.5	7.92	-157.23	-157.23	-157.23				
326	UncleBud-2-5 20110826.raw	168.5	7.89	-156.53	-156.49	-156.49		-156.86	-156.86	0.52
327	Rufina-2-1 20110826.raw	170.3	7.78	-94.66	-90.71	-90.71				
328	Rufina-2-2 20110826.raw	170.3	8.12	-92.87	-88.80	-88.80				
329	Rufina-2-3 20110826.raw	170.3	7.95	-92.55	-88.47	-88.47				
330	Rufina-2-4 20110826.raw	170.3	7.82	-92.37	-88.27	-88.27				
331	Rufina-2-5 20110826.raw	170.3	8.01	-92.22	-88.11	-88.11		-88.19	-88.19	0.11
332	Ginnie-2-1 20110826.raw	168.7	8.03	-26.68	-18.44	-18.44				
333	Ginnie-2-2 20110826.raw	168.2	7.91	-25.40	-17.08	-17.08				
334	Ginnie-2-3 20110826.raw	168.3	8.05	-25.20	-16.87	-16.87				
335	Ginnie-2-4 20110826.raw	168.1	7.98	-24.80	-16.44	-16.44				
336	Ginnie-2-5 20110826.raw	168.0	8.07	-25.11	-16.77	-16.77		-16.60	-16.60	0.23
337	DoubleDI-17-1 20110826.raw	170.4	7.80	-75.86	-70.72	-70.72				
338	DoubleDI-17-2 20110826.raw	169.8	8.75	-76.26	-71.14	-71.14				
339	DoubleDI-17-3 20110826.raw	170.6	7.72	-77.64	-72.62	-72.62				
340	DoubleDI-17-4 20110826.raw	170.4	8.01	-77.98	-72.97	-72.97				
341	DoubleDI-17-5 20110826.raw	170.7	7.70	-78.00	-73.00	-73.00		-72.99	-72.99	0.02

-74.33 -74.33
0.75 0.75

8/26/2011 RUN LOG dD PASTE SAMPLES IN THIS COLUMN

0	DoubleDI-1	
1	Pawpow-1	
2	CSLA-1	
3	UncleBud-1	
4	Rufina-1	
5	Ginnie-1	
6	DoubleDI-2	
7	Dairy Willis Well #2 (South Well)	FA04
8	126 New Horizon MW3	FA07
9	Dairy Cheyenne I III Well 11436	FB06
10	Dairy 167 Morales Domestic	FB07
11	Precipitation GGRL July 2011	Fridge
12	DoubleDI-3	
13	Precipitation GGRL June 2011	Fridge
14	CAWR-10-25326	BA01
15	CAWR-10-25401	BA04
16	CAPA-11-23035	BA05
17	CAPA-11-23039	BA06
18	DoubleDI-4	
19	CAPA-11-4722	BA07
20	CAPA-11-23024	BA08
21	CAPA-11-23022	BA09
22	CAMO-11-4644	BA10
23	CAPA-11-22978	BB01
24	DoubleDI-5	
25	CAPA-11-23029	BB02
26	CAPA-11-23032	BB03
27	CAAN-11-5489	BB04
28	CASA-11-10823	BB07
29	CALA-11-5183	BB10
30	DoubleDI-6	
31	CALA-11-5188	BC01
32	CAWR-10-25455	BC07
33	CAPA-11-22851	BC08
34	CAPA-11-23020	BC09
35	CAPA-11-22871	BC10
36	DoubleDI-7	
37	CAPA-11-22876	BD01
38	CAMO-11-24681	BD02
39	CAMO-11-24650	BD03
40	CAPA-11-9515	EA01
41	CAPA-11-9518	EA02
42	DoubleDI-8	
43	CAPA-11-10606	EA03
44	CAMO-11-10755	EA04
45	CAMO-11-10720	EA05
46	CAMO-11-10726	EA06
47	CAMO-11-10760	EA07
48	DoubleDI-9	
49	CAMO-11-10771	EA08
50	CAMO-11-10824	EA09
51	CAMO-11-10852	EA10
52	CAPU-11-13928	EB01
53	CAWA-11-7035	EB02

54	DoubleDI-10	
55	CAPA-11-9500	EB03
56	CAPA-11-9325	EB04
57	CAPA-11-9483	EB05
58	CAPA-11-9491	EB06
59	CAWA-10-25851	EB07
60	DoubleDI-11	
61	CAWA-11-6881	EB08
62	CAPA-11-9405	EB09
63	CAPA-11-9446	EB10
64	CAWA-11-6931	EC02
65	CAPA-11-9508	EC04
66	DoubleDI-12	
67	CAPA-11-9505	EC05
68	CAPA-11-9499	EC06
69	CAPA-11-9475	EC07
70	CAPA-11-9464	EC08
71	CAPA-11-9378	EC09
72	DoubleDI-13	
73	CAPA-11-9366	EC10
74	CAPA-11-9318	ED05
75	CAAN-11-13955	ED07
76	CAPU-11-13932	ED08
77	CAPA-11-9298	ED09
78	DoubleDI-14	
79	CAAN-11-13959	EE02
80	CAWA-11-14624	EE04
81	CAPA-11-23043	EE05
82	CAPA-11-9510	EE06
83	CAPA-11-9514	EE07
84	DoubleDI-15	
85	CAMO-11-11689	EE08
86	CAMO-11-10752	EE09
87	CAPA-11-23047	EE10
88	Dairy Willis Well #2 (South Well) dup	FA04
89	126 New Horizon MW3 dup	FA07
90	DoubleDI-16	
91	Dairy Cheyenne I III Well 11436 dup	FB06
92	Precipitation GGRL July 2011 dup	Fridge
93	Precipitation GGRL June 2011 dup	Fridge
94	Pawpow-2	
95	CSLA-2	
96	UncleBud-2	
97	Rufina-2	
98	Ginnie-2	
99	DoubleDI-17	

Stable Isotope CF Analysis Results



File: Measure H3 8-26-2011.raw Acquisition Date: 26/8/11 12:41
 Project: ChromeHD.PRO Weight: 0.00
 Sample list: Ref gas stability template.spl Injection Volume: 0
 Line: 7 Bottle: 1
 MS file: CF measure H3 correction Type:
 Inlet: Elemental analyser Standard:
 Inlet file: Measure H3 correction Slot Number: JB118
 Sample ID: Run Index:
 Description:

Reference standard					Corrections	
Species: H2 by CF (uncalibrated)					Equilibrium correction: None	
Gas: H2 Uncalibrated H2					H3+ correction factor: 11.76	
Ratio type: Elemental					H3+ recalculated: FALSE	
Deconvolution: No deconvolution						
Elemental delta						
Label:	Value:	Molecular delta	Label:	Value:	wrt:	
Ratio 1: D	-171	delta 3	-171.00	SMOW		
Ratio 2:			0.00	0.00		

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 3/2
6	4.11	29.1	3.4687E-04
12	4.11	89.1	3.4677E-04
18	3.10	149.2	3.4564E-04
24	3.10	209.1	3.4572E-04

Mean: 3.4625E-04
 Std Dev of fit (%): 1.04 #DIV/0!

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 3/2	Raw Delta	delta D
1	4.3	0.00	1.6118E-12	1.0864E-04	-686.25	-739.90
2	7.5	0.00	4.3250E-13	7.9042E-04	1282.82	892.46
3	9.3	0.00	1.4785E-12	5.2804E-04	525.02	264.24
4	10.4	0.00	1.4711E-12	2.4544E-04	-291.15	-412.37
5	11.5	0.00	5.4781E-13	6.3708E-04	839.94	525.31
6	47.9	0.00	1.8832E-11	7.3384E-04	1119.39	756.98
7	54.6	0.00	6.1814E-11	6.1608E-04	779.30	475.04
8	61.4	0.00	2.6329E-11	6.3443E-04	832.30	518.98
9	66.0	0.00	1.5221E-11	5.9369E-04	714.65	421.44
10	68.1	0.00	1.3082E-11	5.8144E-04	679.25	392.09
11	119.7	0.00	1.1876E-11	7.6006E-04	1195.12	819.75
12	123.0	0.00	1.8118E-11	6.8327E-04	973.36	635.92
13	124.4	0.00	5.4839E-12	5.4681E-04	579.23	309.19
14	126.3	0.00	3.2990E-11	6.5827E-04	901.16	576.06
15	132.4	0.00	2.1259E-11	6.4571E-04	864.86	545.97
16	171.9	0.00	2.2283E-11	7.5447E-04	1178.98	806.38
17	176.8	0.00	2.1292E-11	7.4428E-04	1149.54	781.97
18	177.7	0.00	9.8139E-12	6.8893E-04	989.70	649.46
19	178.9	0.00	1.8408E-11	7.1845E-04	1074.95	720.13
20	184.3	0.00	1.5766E-11	6.8486E-04	977.37	639.24
21	232.6	0.00	1.5842E-11	8.0079E-04	1312.77	917.29
22	237.2	0.00	1.1714E-11	8.3845E-04	1421.53	1007.45
23	243.6	0.00	6.0825E-11	7.7173E-04	1228.83	847.70

Stable Isotope CF Analysis Results



File: Stability H2 8-26-2013.raw Acquisition Date: 26/8/11 12:25
Project: ChromeHD PRO Weight: 0.00
Sample list: Ref gas stability template.spl Injection Volume: 0
Line: 6 Bottle: 3
MS file: H2 ref gas stability Type:
Inlet: Elemental analyser Standard:
Inlet file: Ref Gas Stability Slot Number: JB118
Sample ID: Run Index:
Description:

Reference standard					Corrections	
Species: H2 by CF (uncalibrated)					Equilibrium correction: None	
Gas: H2 Uncalibrated H2					H3+ correction factor: 11.76	
Ratio type: Elemental					H3+ recalculated: FALSE	
Deconvolution: No deconvolution						
Elemental delta						
Label:		Value:	Label:	Value:	wrt:	
Ratio 1: D		-171	delta 3	-171.00	SMOW	
Ratio 2:				0.00	0.00	

Reference Data

Peak No	Major Height (nA)	RT (Sec)	Ratio 3/2
6	4.16	29.1	3.4639E-04
13	4.16	89.1	3.4634E-04
20	4.19	149.1	3.4632E-04
24	4.17	209.1	3.4645E-04
31	4.17	269.1	3.4645E-04
36	4.17	329.1	3.4654E-04
42	4.18	389.1	3.4658E-04
50	4.17	449.1	3.4669E-04
57	4.16	509.1	3.4676E-04
63	4.16	569.1	3.4693E-04

Mean: 3.4654E-04
Std Dev of fit (%): 0.21 #DIV/0!

Sample Data

Peak No	RT (Sec)	Major Height (nA)	Major Area	Ratio 3/2	Raw Delta	delta D
1	2.9	0.00	2.4994E-13	8.3236E-04	1401.89	991.17
2	3.8	0.00	3.9625E-13	1.1317E-03	2265.59	1707.18
3	5.0	0.00	2.3288E-13	3.2919E-04	-50.08	-212.51
4	6.7	0.00	7.5900E-13	1.5324E-03	3421.92	2665.78
5	9.1	0.00	3.3949E-12	1.0466E-03	2020.02	1503.60
6	51.0	0.00	2.4224E-11	6.3179E-04	823.12	511.37
7	57.4	0.00	1.6731E-11	5.9567E-04	718.88	424.95
8	60.1	0.00	2.2163E-11	5.4674E-04	577.68	307.90
9	64.7	0.00	1.1426E-11	5.0400E-04	454.35	205.66
10	67.0	0.00	8.9321E-12	3.3902E-04	-21.70	-188.99
11	71.4	0.00	1.9371E-11	2.3670E-04	-316.97	-433.76
12	110.8	0.00	1.1556E-11	6.2926E-04	815.81	505.31
13	112.9	0.00	4.1252E-11	6.4800E-04	869.88	550.13
14	124.3	0.00	2.1869E-11	5.8064E-04	875.52	389.00
15	125.7	0.00	5.1871E-12	6.0594E-04	748.51	449.51
16	126.4	0.00	1.0122E-11	5.4528E-04	573.47	304.41
17	130.8	0.00	3.6281E-12	6.1403E-04	771.87	468.88
18	170.7	0.00	3.2304E-11	7.1459E-04	1062.05	709.44
19	174.8	0.00	1.6752E-11	7.1912E-04	1075.12	720.28
20	176.3	0.00	2.0035E-11	6.9716E-04	1011.75	667.74
21	234.6	0.00	3.2829E-11	7.0728E-04	1040.96	691.96
22	238.3	0.00	1.0393E-11	6.9098E-04	993.92	652.96
23	243.4	0.00	4.8928E-11	6.4544E-04	862.50	544.02
24	247.8	0.00	1.1022E-11	6.5273E-04	883.53	561.44
25	249.1	0.00	7.5966E-12	7.0055E-04	1021.53	675.85
26	252.1	0.00	1.5039E-11	7.0331E-04	1029.51	682.46
27	289.4	0.00	1.3801E-11	7.3678E-04	1126.08	762.52
28	298.2	0.00	1.3919E-11	8.1341E-04	1347.20	945.83
29	306.6	0.00	1.7872E-11	8.1280E-04	1345.43	944.36
30	309.6	0.00	1.1528E-11	8.7160E-04	1515.13	1085.04
31	347.3	0.00	2.7062E-11	6.9235E-04	997.86	656.23
32	360.5	0.00	9.2583E-12	1.0228E-03	1951.55	1446.83
33	362.8	0.00	7.4668E-12	9.8192E-04	1833.48	1348.95

Stable Isotope Analysis Batch Results Sheet, H2



Batch start: #NAME?

Project: ChromeHD.PRO

Batch end: #NAME?

Blank Subtracted: FALSE

Temp Correction: None

Calculated Using Standards: FALSE

EC Calculated Using Aux. Detector: TRUE

Analysis results

Sample Number	Name	Acquisition date	RT (Sec)	Height (nA)	Type	Weight (mg)	Sample Description	D			
2	DoubleDI-1-1 20110826.raw	26/8/11 12:51	168.9	7.53		0.00		-82.47			
3	DoubleDI-1-2 20110826.raw	26/8/11 12:59	168.7	7.52		0.00		-80.63			
4	DoubleDI-1-3 20110826.raw	26/8/11 13:06	168.2	7.43		0.00		-82.06			
5	DoubleDI-1-4 20110826.raw	26/8/11 13:14	169.6	7.50		0.00		-80.57			
6	DoubleDI-1-5 20110826.raw	26/8/11 13:22	169.3	7.59		0.00		-80.12			
7	DoubleDI-1-6 20110826.raw	26/8/11 13:29	171.2	7.44		0.00		-81.13			
8	DoubleDI-1-7 20110826.raw	26/8/11 13:37	171.1	7.53		0.00		-79.77			
9	DoubleDI-1-8 20110826.raw	26/8/11 13:44	171.0	7.48		0.00		-79.88			
10	DoubleDI-1-9 20110826.raw	26/8/11 13:52	170.9	7.42		0.00		-80.17			
11	DoubleDI-1-10 20110826.raw	26/8/11 14:00	170.9	7.51		0.00		-79.53			
12	DoubleDI-1-11 20110826.raw	26/8/11 14:07	172.6	7.46		0.00		-80.25			
13	DoubleDI-1-12 20110826.raw	26/8/11 14:15	172.6	7.35		0.00		-80.30			
14	DoubleDI-1-13 20110826.raw	26/8/11 14:23	172.1	7.46		0.00		-79.86			
15	DoubleDI-1-14 20110826.raw	26/8/11 14:30	172.2	7.53		0.00		-79.08			
16	DoubleDI-1-1 20110826.raw	26/8/11 14:41	168.4	7.42		0.00		-80.53			
17	DoubleDI-1-2 20110826.raw	26/8/11 14:49	169.3	7.23		0.00		-79.87			
18	DoubleDI-1-3 20110826.raw	26/8/11 14:56	169.2	7.18		0.00		-79.03			
19	DoubleDI-1-4 20110826.raw	26/8/11 15:04	168.1	7.77		0.00		-78.88			
20	DoubleDI-1-5 20110826.raw	26/8/11 15:12	169.3	7.22		0.00		-79.77			
21	Pawpow-1-1 20110826.raw	26/8/11 15:19	171.1	7.17		0.00		-121.15			
22	Pawpow-1-2 20110826.raw	26/8/11 15:27	171.2	7.07		0.00		-122.71			
23	Pawpow-1-3 20110826.raw	26/8/11 15:35	171.4	6.50		0.00		-123.80			
24	Pawpow-1-4 20110826.raw	26/8/11 15:42	171.6	6.39		0.00		-123.26			
25	Pawpow-1-5 20110826.raw	26/8/11 15:50	171.2	7.12		0.00		-123.58			
26	CSLA-1-1 20110826.raw	26/8/11 15:58	173.1	7.11		0.00		-122.26			
27	CSLA-1-2 20110826.raw	26/8/11 16:05	172.9	7.18		0.00		-123.20			
28	CSLA-1-3 20110826.raw	26/8/11 16:13	173.2	7.09		0.00		-122.74			
29	CSLA-1-4 20110826.raw	26/8/11 16:21	173.0	7.21		0.00		-122.97			
30	CSLA-1-5 20110826.raw	26/8/11 16:29	173.2	7.21		0.00		-122.79			
31	JncleBud-1-1 20110826.raw	26/8/11 16:36	174.7	7.18		0.00		-158.30			
32	JncleBud-1-2 20110826.raw	26/8/11 16:44	175.2	6.86		0.00		-159.35			
33	JncleBud-1-3 20110826.raw	26/8/11 16:52	175.0	7.09		0.00		-159.61			
34	JncleBud-1-4 20110826.raw	26/8/11 16:59	175.3	5.94		0.00		-160.30			
35	JncleBud-1-5 20110826.raw	26/8/11 17:07	174.7	7.21		0.00		-158.75			
36	Rufina-1-1 20110826.raw	26/8/11 17:15	175.8	7.44		0.00		-94.74			
37	Rufina-1-2 20110826.raw	26/8/11 17:22	176.1	7.20		0.00		-93.55			
38	Rufina-1-3 20110826.raw	26/8/11 17:30	176.8	6.92		0.00		-94.05			
39	Rufina-1-4 20110826.raw	26/8/11 17:38	176.7	7.17		0.00		-92.78			
40	Rufina-1-5 20110826.raw	26/8/11 17:45	176.2	7.20		0.00		-92.01			

41	Ginnie-1-1 20110826.raw	26/8/11 17:53	178.5	6.92	0.00	-28.67
42	Ginnie-1-2 20110826.raw	26/8/11 18:01	178.0	6.98	0.00	-26.36
43	Ginnie-1-3 20110826.raw	26/8/11 18:09	177.9	7.08	0.00	-26.82
44	Ginnie-1-4 20110826.raw	26/8/11 18:16	178.7	6.76	0.00	-27.47
45	Ginnie-1-5 20110826.raw	26/8/11 18:24	178.7	7.03	0.00	-25.59
46	DoubleDI-2-1 20110826.raw	26/8/11 18:32	169.6	7.20	0.00	-78.94
47	DoubleDI-2-2 20110826.raw	26/8/11 18:39	169.3	6.83	0.00	-81.63
48	DoubleDI-2-3 20110826.raw	26/8/11 18:47	167.7	8.49	0.00	-77.43
49	DoubleDI-2-4 20110826.raw	26/8/11 18:55	168.8	7.25	0.00	-79.99
50	DoubleDI-2-5 20110826.raw	26/8/11 19:02	169.0	7.17	0.00	-80.40
51	Well #2 (South Well)-1 2011	26/8/11 19:10	171.0	7.28	0.00	-61.02
52	Well #2 (South Well)-2 2011	26/8/11 19:18	170.8	7.48	0.00	-58.02
53	Well #2 (South Well)-3 2011	26/8/11 19:26	170.8	7.46	0.00	-59.52
54	aw Horizon MW3-1 201108	26/8/11 19:33	169.5	7.42	0.00	-57.17
55	aw Horizon MW3-2 201108	26/8/11 19:41	168.9	7.41	0.00	-57.77
56	aw Horizon MW3-3 201108	26/8/11 19:49	168.9	7.43	0.00	-57.57
57	enne I III Well 11436-1 2011	26/8/11 19:57	170.8	7.40	0.00	-56.91
58	enne I III Well 11436-2 2011	26/8/11 20:04	170.4	7.38	0.00	-58.92
59	enne I III Well 11436-3 2011	26/8/11 20:12	170.8	7.45	0.00	-57.93
60	Morales Domestic-1 2011	26/8/11 20:20	169.5	7.46	0.00	-59.76
61	Morales Domestic-2 2011	26/8/11 20:28	168.6	7.52	0.00	-58.72
62	Morales Domestic-3 2011	26/8/11 20:35	168.8	7.51	0.00	-59.59
63	on GGRL July 2011-1 2011	26/8/11 20:43	170.4	7.96	0.00	-37.26
64	on GGRL July 2011-2 2011	26/8/11 20:51	170.9	7.64	0.00	-35.26
65	on GGRL July 2011-3 2011	26/8/11 20:59	170.8	7.68	0.00	-35.12
66	DoubleDI-3-1 20110826.raw	26/8/11 21:06	172.5	7.60	0.00	-77.84
67	DoubleDI-3-2 20110826.raw	26/8/11 21:14	172.4	7.60	0.00	-78.59
68	DoubleDI-3-3 20110826.raw	26/8/11 21:22	172.5	7.52	0.00	-79.64
69	on GGRL June 2011-1 2011	26/8/11 21:30	174.3	7.68	0.00	-42.74
70	on GGRL June 2011-2 2011	26/8/11 21:38	174.5	7.78	0.00	-42.04
71	on GGRL June 2011-3 2011	26/8/11 21:45	173.6	8.36	0.00	-41.52
72	WR-10-25326-1 20110826	26/8/11 21:53	175.6	7.90	0.00	-78.70
73	WR-10-25326-2 20110826	26/8/11 22:01	175.7	7.87	0.00	-78.32
74	WR-10-25326-3 20110826	26/8/11 22:09	176.2	7.67	0.00	-78.72
75	WR-10-25401-1 20110826	26/8/11 22:16	178.2	7.64	0.00	-81.53
76	WR-10-25401-2 20110826	26/8/11 22:24	178.2	7.53	0.00	-81.65
77	WR-10-25401-3 20110826	26/8/11 22:32	178.3	7.41	0.00	-82.27
78	PA-11-23035-1 20110826	26/8/11 22:40	169.4	7.69	0.00	-81.76
79	PA-11-23035-2 20110826	26/8/11 22:48	168.8	7.61	0.00	-81.51
80	PA-11-23035-3 20110826	26/8/11 22:56	168.7	7.64	0.00	-78.46
81	PA-11-23039-1 20110826	26/8/11 23:03	170.7	7.74	0.00	-80.39
82	PA-11-23039-2 20110826	26/8/11 23:11	170.7	7.72	0.00	-81.78
83	PA-11-23039-3 20110826	26/8/11 23:19	170.7	7.72	0.00	-82.22
84	DoubleDI-4-1 20110826.raw	26/8/11 23:27	169.4	7.74	0.00	-78.18
85	DoubleDI-4-2 20110826.raw	26/8/11 23:34	167.8	8.47	0.00	-77.94
86	DoubleDI-4-3 20110826.raw	26/8/11 23:42	168.8	7.70	0.00	-79.54
87	APA-11-4722-1 20110826.r	26/8/11 23:50	170.7	7.51	0.00	-83.04
88	APA-11-4722-2 20110826.r	26/8/11 23:58	170.7	7.55	0.00	-82.81
89	APA-11-4722-3 20110826.r	27/8/11 0:06	170.7	7.53	0.00	-82.07
90	PA-11-23024-1 20110826	27/8/11 0:13	169.4	7.76	0.00	-80.06
91	PA-11-23024-2 20110826	27/8/11 0:21	168.8	7.54	0.00	-80.94
92	PA-11-23024-3 20110826	27/8/11 0:29	168.6	7.66	0.00	-80.74
93	PA-11-23022-1 20110826	27/8/11 0:37	170.6	7.67	0.00	-81.61
94	PA-11-23022-2 20110826	27/8/11 0:45	170.7	7.74	0.00	-80.21
95	PA-11-23022-3 20110826	27/8/11 0:53	170.7	7.74	0.00	-80.35
96	MO-11-4644-1 20110826.r	27/8/11 1:00	172.6	7.68	0.00	-80.67
97	MO-11-4644-2 20110826.r	27/8/11 1:08	172.4	7.69	0.00	-81.22

98	MO-11-4644-3 20110826.r	27/8/11 1:16	172.5	7.71	0.00	-80.73
99	PA-11-22978-1 20110826.r	27/8/11 1:24	174.6	7.68	0.00	-80.54
100	PA-11-22978-2 20110826.r	27/8/11 1:32	174.4	7.65	0.00	-81.55
101	PA-11-22978-3 20110826.r	27/8/11 1:40	174.4	7.66	0.00	-81.20
102	DoubleDI-5-1 20110826.rav	27/8/11 1:48	176.2	7.52	0.00	-79.86
103	DoubleDI-5-2 20110826.rav	27/8/11 1:56	176.0	7.69	0.00	-79.45
104	DoubleDI-5-3 20110826.rav	27/8/11 2:07	176.1	7.61	0.00	-77.72
105	PA-11-23029-1 20110826.r	27/8/11 2:14	178.2	7.60	0.00	-81.45
106	PA-11-23029-2 20110826.r	27/8/11 2:22	178.0	7.63	0.00	-82.96
107	PA-11-23029-3 20110826.r	27/8/11 2:30	178.2	7.68	0.00	-81.97
108	PA-11-23032-1 20110826.r	27/8/11 2:38	169.3	7.59	0.00	-83.03
109	PA-11-23032-2 20110826.r	27/8/11 2:46	168.1	7.89	0.00	-81.92
110	PA-11-23032-3 20110826.r	27/8/11 2:54	168.8	7.48	0.00	-83.05
111	AN-11-5489-1 20110826.r	27/8/11 3:02	170.4	7.61	0.00	-85.71
112	AN-11-5489-2 20110826.r	27/8/11 3:10	170.6	7.62	0.00	-83.86
113	AN-11-5489-3 20110826.r	27/8/11 3:18	170.6	7.62	0.00	-83.82
114	SA-11-10823-1 20110826.r	27/8/11 3:26	169.1	7.60	0.00	-84.53
115	SA-11-10823-2 20110826.r	27/8/11 3:34	168.5	7.80	0.00	-85.13
116	SA-11-10823-3 20110826.r	27/8/11 3:42	168.5	7.81	0.00	-85.02
117	ALA-11-5183-1 20110826.r	27/8/11 3:49	170.5	7.67	0.00	-77.93
118	ALA-11-5183-2 20110826.r	27/8/11 3:57	170.4	7.83	0.00	-77.46
119	ALA-11-5183-3 20110826.r	27/8/11 4:05	170.5	7.87	0.00	-77.83
120	DoubleDI-6-1 20110826.rav	27/8/11 4:13	169.4	7.82	0.00	-78.81
121	DoubleDI-6-2 20110826.rav	27/8/11 4:21	168.8	7.57	0.00	-80.33
122	DoubleDI-6-3 20110826.rav	27/8/11 4:29	168.8	7.59	0.00	-79.62
123	ALA-11-5188-1 20110826.r	27/8/11 4:37	170.7	7.49	0.00	-79.76
124	ALA-11-5188-2 20110826.r	27/8/11 4:45	170.7	7.56	0.00	-79.55
125	ALA-11-5188-3 20110826.r	27/8/11 4:53	170.6	7.84	0.00	-79.12
126	WR-10-25455-1 20110826.r	27/8/11 5:02	172.5	7.82	0.00	-78.53
127	WR-10-25455-2 20110826.r	27/8/11 5:10	172.5	7.91	0.00	-79.02
128	WR-10-25455-3 20110826.r	27/8/11 5:18	172.5	7.88	0.00	-79.23
129	PA-11-22851-1 20110826.r	27/8/11 5:26	174.5	7.55	0.00	-82.45
130	PA-11-22851-2 20110826.r	27/8/11 5:34	174.2	7.90	0.00	-83.89
131	PA-11-22851-3 20110826.r	27/8/11 5:41	174.2	7.89	0.00	-83.81
132	PA-11-23020-1 20110826.r	27/8/11 5:49	176.2	7.73	0.00	-82.85
133	PA-11-23020-2 20110826.r	27/8/11 5:57	176.1	7.62	0.00	-82.20
134	PA-11-23020-3 20110826.r	27/8/11 6:05	176.1	7.83	0.00	-83.20
135	PA-11-22871-1 20110826.r	27/8/11 6:13	177.9	7.95	0.00	-83.42
136	PA-11-22871-2 20110826.r	27/8/11 6:21	178.1	7.90	0.00	-82.24
137	PA-11-22871-3 20110826.r	27/8/11 6:29	178.2	7.64	0.00	-83.24
138	DoubleDI-7-1 20110826.rav	27/8/11 6:37	169.4	7.94	0.00	-79.60
139	DoubleDI-7-2 20110826.rav	27/8/11 6:45	168.7	7.88	0.00	-78.60
140	DoubleDI-7-3 20110826.rav	27/8/11 6:53	168.7	7.91	0.00	-78.69
141	PA-11-22876-1 20110826.r	27/8/11 7:01	170.4	7.85	0.00	-82.65
142	PA-11-22876-2 20110826.r	27/8/11 7:09	170.6	7.85	0.00	-82.39
143	PA-11-22876-3 20110826.r	27/8/11 7:17	170.4	7.94	0.00	-83.22
144	MO-11-24681-1 20110826.r	27/8/11 7:25	169.1	7.92	0.00	-83.24
145	MO-11-24681-2 20110826.r	27/8/11 7:33	168.6	7.93	0.00	-83.24
146	MO-11-24681-3 20110826.r	27/8/11 7:41	168.7	7.96	0.00	-82.30
147	MO-11-24650-1 20110826.r	27/8/11 7:49	170.6	7.97	0.00	-81.77
148	MO-11-24650-2 20110826.r	27/8/11 7:57	170.5	7.99	0.00	-80.64
149	MO-11-24650-3 20110826.r	27/8/11 8:05	170.5	8.01	0.00	-79.77
150	APA-11-9515-1 20110826.r	27/8/11 8:13	169.3	7.96	0.00	-82.55
151	APA-11-9515-2 20110826.r	27/8/11 8:21	168.6	7.94	0.00	-81.92
152	APA-11-9515-3 20110826.r	27/8/11 8:30	168.5	7.98	0.00	-82.09
153	APA-11-9518-1 20110826.r	27/8/11 8:38	170.3	7.95	0.00	-81.83
154	APA-11-9518-2 20110826.r	27/8/11 8:46	170.6	8.04	0.00	-82.40

155	APA-11-9518-3 20110826.r	27/8/11 8:54	170.5	7.90	0.00	-81.68
156	DoubleDI-8-1 20110826.raw	27/8/11 9:02	172.4	8.04	0.00	-79.57
157	DoubleDI-8-2 20110826.raw	27/8/11 9:10	172.4	7.71	0.00	-79.90
158	DoubleDI-8-3 20110826.raw	27/8/11 9:18	172.2	7.98	0.00	-78.40
159	PA-11-10606-1 20110826.r	27/8/11 9:26	174.3	7.53	0.00	-80.55
160	PA-11-10606-2 20110826.r	27/8/11 9:34	174.0	7.86	0.00	-79.75
161	PA-11-10606-3 20110826.r	27/8/11 9:42	174.3	7.59	0.00	-81.81
162	MO-11-10755-1 20110826.r	27/8/11 9:51	176.0	7.95	0.00	-80.92
163	MO-11-10755-2 20110826.r	27/8/11 9:59	176.3	7.60	0.00	-81.71
164	MO-11-10755-3 20110826.r	27/8/11 10:07	176.3	7.58	0.00	-80.78
165	MO-11-10720-1 20110826.r	27/8/11 10:15	178.1	7.58	0.00	-81.60
166	MO-11-10720-2 20110826.r	27/8/11 10:23	178.0	7.68	0.00	-82.31
167	MO-11-10720-3 20110826.r	27/8/11 10:31	177.9	7.71	0.00	-81.92
168	MO-11-10726-1 20110826.r	27/8/11 10:40	169.3	7.54	0.00	-81.83
169	MO-11-10726-2 20110826.r	27/8/11 10:48	169.0	6.52	0.00	-82.35
170	MO-11-10726-3 20110826.r	27/8/11 10:56	169.0	7.52	0.00	-81.27
171	MO-11-10760-1 20110826.r	27/8/11 11:04	170.5	7.79	0.00	-81.30
172	MO-11-10760-2 20110826.r	27/8/11 11:12	170.7	7.40	0.00	-80.18
173	MO-11-10760-3 20110826.r	27/8/11 11:21	170.9	7.28	0.00	-81.19
174	DoubleDI-9-1 20110826.raw	27/8/11 11:29	169.3	7.78	0.00	-80.29
175	DoubleDI-9-2 20110826.raw	27/8/11 11:37	168.9	7.51	0.00	-79.32
176	DoubleDI-9-3 20110826.raw	27/8/11 11:45	169.1	7.55	0.00	-78.35
177	MO-11-10771-1 20110826.r	27/8/11 11:53	170.6	7.94	0.00	-80.86
178	MO-11-10771-2 20110826.r	27/8/11 12:01	170.4	7.89	0.00	-81.37
179	MO-11-10771-3 20110826.r	27/8/11 12:10	170.7	7.66	0.00	-81.57
180	MO-11-10824-1 20110826.r	27/8/11 12:18	180.4	7.97	0.00	-85.06
181	MO-11-10824-2 20110826.r	27/8/11 12:26	168.9	7.37	0.00	-87.23
182	MO-11-10824-3 20110826.r	27/8/11 12:34	168.0	7.95	0.00	-87.61
183	MO-11-10852-1 20110826.r	27/8/11 12:42	170.5	7.74	0.00	-81.30
184	MO-11-10852-2 20110826.r	27/8/11 12:51	170.6	7.73	0.00	-83.06
185	MO-11-10852-3 20110826.r	27/8/11 12:59	171.0	7.34	0.00	-82.84
186	PU-11-13928-1 20110826.r	27/8/11 13:07	171.7	8.01	0.00	-80.59
187	PU-11-13928-2 20110826.r	27/8/11 13:15	172.8	7.44	0.00	-83.17
188	PU-11-13928-3 20110826.r	27/8/11 13:24	172.5	7.49	0.00	-81.53
189	WA-11-7035-1 20110826.r	27/8/11 13:32	173.7	7.71	0.00	-85.97
190	WA-11-7035-2 20110826.r	27/8/11 13:41	174.0	7.93	0.00	-85.41
191	WA-11-7035-3 20110826.r	27/8/11 13:49	174.1	7.89	0.00	-85.38
192	DoubleDI-10-1 20110826.ra	27/8/11 13:57	176.2	7.42	0.00	-80.88
193	DoubleDI-10-2 20110826.ra	27/8/11 14:05	175.8	7.97	0.00	-79.07
194	DoubleDI-10-3 20110826.ra	27/8/11 14:14	175.8	7.87	0.00	-79.48
195	APA-11-9500-1 20110826.r	27/8/11 14:22	177.7	7.80	0.00	-83.84
196	APA-11-9500-2 20110826.r	27/8/11 14:30	177.8	7.94	0.00	-83.55
197	APA-11-9500-3 20110826.r	27/8/11 14:39	177.8	7.91	0.00	-83.99
198	APA-11-9325-1 20110826.r	27/8/11 14:47	169.3	7.62	0.00	-83.80
199	APA-11-9325-2 20110826.r	27/8/11 14:55	168.4	7.96	0.00	-82.34
200	APA-11-9325-3 20110826.r	27/8/11 15:04	168.4	7.92	0.00	-82.95
201	APA-11-9483-1 20110826.r	27/8/11 15:12	170.5	7.57	0.00	-83.65
202	APA-11-9483-2 20110826.r	27/8/11 15:20	169.3	9.58	0.00	-80.02
203	APA-11-9483-3 20110826.r	27/8/11 15:29	170.7	7.37	0.00	-84.21
204	APA-11-9491-1 20110826.r	27/8/11 15:37	169.4	7.37	0.00	-83.84
205	APA-11-9491-2 20110826.r	27/8/11 15:45	168.4	7.86	0.00	-82.00
206	APA-11-9491-3 20110826.r	27/8/11 15:54	168.4	7.95	0.00	-81.86
207	WA-10-25851-1 20110826.r	27/8/11 16:02	170.2	7.88	0.00	-87.81
208	WA-10-25851-2 20110826.r	27/8/11 16:10	170.2	7.76	0.00	-89.08
209	WA-10-25851-3 20110826.r	27/8/11 16:19	170.5	7.80	0.00	-87.90
210	DoubleDI-11-1 20110826.ra	27/8/11 16:27	169.4	7.55	0.00	-79.23
211	DoubleDI-11-2 20110826.ra	27/8/11 16:35	168.5	7.56	0.00	-80.10

212	DoubleDI-11-3 20110826.ra	27/8/11 16:44	168.6	7.52	0.00	-80.08
213	WA-11-6881-1 20110826.ra	27/8/11 16:52	170.4	7.56	0.00	-85.35
214	WA-11-6881-2 20110826.ra	27/8/11 17:01	170.2	7.66	0.00	-84.97
215	WA-11-6881-3 20110826.ra	27/8/11 17:09	170.4	7.59	0.00	-86.08
216	APA-11-9405-1 20110826.ra	27/8/11 17:18	172.3	7.64	0.00	-82.56
217	APA-11-9405-2 20110826.ra	27/8/11 17:26	172.3	7.54	0.00	-82.72
218	APA-11-9405-3 20110826.ra	27/8/11 17:34	172.6	7.45	0.00	-83.37
219	APA-11-9446-1 20110826.ra	27/8/11 17:43	174.1	7.59	0.00	-84.88
220	APA-11-9446-2 20110826.ra	27/8/11 17:51	174.1	7.52	0.00	-84.66
221	APA-11-9446-3 20110826.ra	27/8/11 18:00	174.1	7.55	0.00	-83.87
222	WA-11-6931-1 20110826.ra	27/8/11 18:08	176.0	7.61	0.00	-85.55
223	WA-11-6931-2 20110826.ra	27/8/11 18:17	176.2	7.55	0.00	-85.68
224	WA-11-6931-3 20110826.ra	27/8/11 18:25	175.7	7.66	0.00	-86.02
225	APA-11-9508-1 20110826.ra	27/8/11 18:34	177.8	7.99	0.00	-78.33
226	APA-11-9508-2 20110826.ra	27/8/11 18:42	178.0	7.60	0.00	-81.07
227	APA-11-9508-3 20110826.ra	27/8/11 18:51	178.0	7.55	0.00	-81.06
228	DoubleDI-12-1 20110826.ra	27/8/11 18:59	169.2	7.56	0.00	-80.16
229	DoubleDI-12-2 20110826.ra	27/8/11 19:08	168.7	7.60	0.00	-78.77
230	DoubleDI-12-3 20110826.ra	27/8/11 19:17	168.9	7.49	0.00	-79.27
231	APA-11-9505-1 20110826.ra	27/8/11 19:25	170.5	7.51	0.00	-79.79
232	APA-11-9505-2 20110826.ra	27/8/11 19:34	170.2	7.49	0.00	-81.57
233	APA-11-9505-3 20110826.ra	27/8/11 19:43	170.6	7.57	0.00	-80.67
234	APA-11-9499-1 20110826.ra	27/8/11 19:52	168.8	10.47	0.00	-74.60
235	APA-11-9499-2 20110826.ra	27/8/11 20:03	168.5	7.42	0.00	-82.01
236	APA-11-9499-3 20110826.ra	27/8/11 20:12	168.3	7.87	0.00	-82.49
237	APA-11-9475-1 20110826.ra	27/8/11 20:20	170.1	7.87	0.00	-82.97
238	APA-11-9475-2 20110826.ra	27/8/11 20:29	170.4	7.57	0.00	-81.57
239	APA-11-9475-3 20110826.ra	27/8/11 20:38	170.7	7.51	0.00	-82.83
240	APA-11-9464-1 20110826.ra	27/8/11 20:46	168.9	8.05	0.00	-80.62
241	APA-11-9464-2 20110826.ra	27/8/11 20:55	167.9	7.93	0.00	-81.41
242	APA-11-9464-3 20110826.ra	27/8/11 21:04	168.3	8.07	0.00	-80.91
243	APA-11-9378-1 20110826.ra	27/8/11 21:12	170.0	8.05	0.00	-82.44
244	APA-11-9378-2 20110826.ra	27/8/11 21:21	170.0	7.90	0.00	-82.09
245	APA-11-9378-3 20110826.ra	27/8/11 21:30	170.0	8.08	0.00	-81.61
246	DoubleDI-13-1 20110826.ra	27/8/11 21:38	171.9	8.00	0.00	-79.84
247	DoubleDI-13-2 20110826.ra	27/8/11 21:47	172.1	7.95	0.00	-79.47
248	DoubleDI-13-3 20110826.ra	27/8/11 21:56	172.0	8.03	0.00	-79.49
249	APA-11-9366-1 20110826.ra	27/8/11 22:05	174.1	7.63	0.00	-82.74
250	APA-11-9366-2 20110826.ra	27/8/11 22:13	174.1	7.67	0.00	-83.45
251	APA-11-9366-3 20110826.ra	27/8/11 22:22	173.9	8.03	0.00	-82.73
252	APA-11-9318-1 20110826.ra	27/8/11 22:31	175.7	7.99	0.00	-81.37
253	APA-11-9318-2 20110826.ra	27/8/11 22:39	175.7	8.03	0.00	-81.68
254	APA-11-9318-3 20110826.ra	27/8/11 22:48	175.6	8.00	0.00	-82.33
255	AN-11-13955-1 20110826.ra	27/8/11 22:57	178.1	7.43	0.00	-84.66
256	AN-11-13955-2 20110826.ra	27/8/11 23:06	178.1	7.56	0.00	-83.66
257	AN-11-13955-3 20110826.ra	27/8/11 23:14	178.1	7.60	0.00	-83.96
258	PU-11-13932-1 20110826.ra	27/8/11 23:23	169.1	7.53	0.00	-80.93
259	PU-11-13932-2 20110826.ra	27/8/11 23:32	168.6	7.48	0.00	-81.19
260	PU-11-13932-3 20110826.ra	27/8/11 23:41	168.5	7.47	0.00	-81.08
261	APA-11-9298-1 20110826.ra	27/8/11 23:49	170.5	7.57	0.00	-83.65
262	APA-11-9298-2 20110826.ra	27/8/11 23:58	170.1	7.98	0.00	-82.81
263	APA-11-9298-3 20110826.ra	28/8/11 0:07	170.3	7.58	0.00	-83.64
264	DoubleDI-14-1 20110826.ra	28/8/11 0:16	169.2	7.54	0.00	-79.58
265	DoubleDI-14-2 20110826.ra	28/8/11 0:25	168.7	7.51	0.00	-79.44
266	DoubleDI-14-3 20110826.ra	28/8/11 0:34	168.2	8.07	0.00	-77.56
267	AN-11-13959-1 20110826.ra	28/8/11 0:43	170.2	8.12	0.00	-83.44
268	AN-11-13959-2 20110826.ra	28/8/11 0:51	170.2	8.08	0.00	-83.40

269	AN-11-13959-3 20110826.	28/8/11 1:00	169.7	7.59	0.00	-85.02
270	WA-11-14624-1 20110826.	28/8/11 1:09	169.6	7.62	0.00	-88.36
271	WA-11-14624-2 20110826.	28/8/11 1:18	168.9	7.66	0.00	-88.58
272	WA-11-14624-3 20110826.	28/8/11 1:27	169.2	7.37	0.00	-89.54
273	PA-11-23043-1 20110826.	28/8/11 1:37	170.7	7.51	0.00	-82.05
274	PA-11-23043-2 20110826.	28/8/11 1:45	170.7	7.60	0.00	-82.81
275	PA-11-23043-3 20110826.	28/8/11 1:54	170.9	7.46	0.00	-83.10
276	APA-11-9510-1 20110826.r	28/8/11 2:03	172.6	7.49	0.00	-83.49
277	APA-11-9510-2 20110826.r	28/8/11 2:12	172.8	7.43	0.00	-82.30
278	APA-11-9510-3 20110826.r	28/8/11 2:21	172.8	7.35	0.00	-83.53
279	APA-11-9514-1 20110826.r	28/8/11 2:30	174.6	7.32	0.00	-83.47
280	APA-11-9514-2 20110826.r	28/8/11 2:39	174.3	7.43	0.00	-83.28
281	APA-11-9514-3 20110826.r	28/8/11 2:48	174.6	7.26	0.00	-83.34
282	oubleDI-15-1 20110826.ra	28/8/11 2:57	176.0	7.51	0.00	-80.02
283	oubleDI-15-2 20110826.ra	28/8/11 3:06	176.5	7.20	0.00	-81.09
284	oubleDI-15-3 20110826.ra	28/8/11 3:15	176.7	6.89	0.00	-80.54
285	MO-11-11689-1 20110826.	28/8/11 3:24	176.8	9.03	0.00	-78.99
286	MO-11-11689-2 20110826.	28/8/11 3:34	178.1	7.59	0.00	-81.53
287	MO-11-11689-3 20110826.	28/8/11 3:43	178.2	7.41	0.00	-81.74
288	MO-11-10752-1 20110826.	28/8/11 3:52	169.3	7.47	0.00	-83.63
289	MO-11-10752-2 20110826.	28/8/11 4:01	168.7	7.47	0.00	-83.47
290	MO-11-10752-3 20110826.	28/8/11 4:10	168.9	7.35	0.00	-83.62
291	PA-11-23047-1 20110826.	28/8/11 4:19	171.2	7.29	0.00	-82.00
292	PA-11-23047-2 20110826.	28/8/11 4:28	170.4	7.67	0.00	-83.28
293	PA-11-23047-3 20110826.	28/8/11 4:37	171.1	7.25	0.00	-82.36
294	Well #2 (South Well) dup-1 2	28/8/11 4:46	169.0	7.98	0.00	-59.49
295	Well #2 (South Well) dup-2 2	28/8/11 4:56	169.0	7.38	0.00	-59.96
296	Well #2 (South Well) dup-3 2	28/8/11 5:05	169.0	7.32	0.00	-60.32
297	Horizon MW3 dup-1 2011	28/8/11 5:14	170.4	7.66	0.00	-58.10
298	Horizon MW3 dup-2 2011	28/8/11 5:23	170.8	7.49	0.00	-57.69
299	Horizon MW3 dup-3 2011	28/8/11 5:32	171.1	6.91	0.00	-60.11
300	oubleDI-16-1 20110826.ra	28/8/11 5:42	169.2	7.75	0.00	-78.41
301	oubleDI-16-2 20110826.ra	28/8/11 5:51	168.9	7.13	0.00	-79.76
302	oubleDI-16-3 20110826.ra	28/8/11 6:00	169.2	7.23	0.00	-79.77
303	ne I III Well 11436 dup-1 2	28/8/11 6:09	170.7	7.56	0.00	-59.80
304	ne I III Well 11436 dup-2 2	28/8/11 6:19	170.8	7.43	0.00	-59.35
305	ne I III Well 11436 dup-3 2	28/8/11 6:28	170.8	7.49	0.00	-59.45
306	GGRL July 2011 dup-1 20	28/8/11 6:37	173.0	7.32	0.00	-36.81
307	GGRL July 2011 dup-2 20	28/8/11 6:46	172.7	7.56	0.00	-35.88
308	GGRL July 2011 dup-3 20	28/8/11 6:56	172.6	7.73	0.00	-36.25
309	GGRL June 2011 dup-1 20	28/8/11 7:05	174.1	7.89	0.00	-42.20
310	GGRL June 2011 dup-2 20	28/8/11 7:15	173.9	7.97	0.00	-41.89
311	GGRL June 2011 dup-3 20	28/8/11 7:24	173.2	8.74	0.00	-41.14
312	Pawpow-2-1 20110826.raw	28/8/11 7:34	175.8	7.89	0.00	-116.79
313	Pawpow-2-2 20110826.raw	28/8/11 7:43	175.7	7.93	0.00	-118.08
314	Pawpow-2-3 20110826.raw	28/8/11 7:53	175.6	7.98	0.00	-121.54
315	Pawpow-2-4 20110826.raw	28/8/11 8:02	175.8	7.95	0.00	-120.45
316	Pawpow-2-5 20110826.raw	28/8/11 8:12	175.6	8.04	0.00	-120.04
317	CSLA-2-1 20110826.raw	28/8/11 8:22	177.5	7.93	0.00	-121.85
318	CSLA-2-2 20110826.raw	28/8/11 8:31	177.7	8.01	0.00	-119.81
319	CSLA-2-3 20110826.raw	28/8/11 8:41	177.9	7.84	0.00	-121.44
320	CSLA-2-4 20110826.raw	28/8/11 8:50	177.8	7.85	0.00	-121.52
321	CSLA-2-5 20110826.raw	28/8/11 9:00	177.6	7.77	0.00	-121.85
322	UncleBud-2-1 20110826.ra	28/8/11 9:09	169.0	7.85	0.00	-154.95
323	UncleBud-2-2 20110826.ra	28/8/11 9:19	168.5	7.89	0.00	-156.71
324	UncleBud-2-3 20110826.ra	28/8/11 9:28	168.4	7.92	0.00	-156.32
325	UncleBud-2-4 20110826.ra	28/8/11 9:37	168.5	7.92	0.00	-157.23

326	JncleBud-2-5 20110826.raw	28/8/11 9:47	168.5	7.89	0.00	-156.53
327	Rufina-2-1 20110826.raw	28/8/11 9:56	170.3	7.78	0.00	-94.66
328	Rufina-2-2 20110826.raw	28/8/11 10:06	170.3	8.12	0.00	-92.87
329	Rufina-2-3 20110826.raw	28/8/11 10:15	170.3	7.95	0.00	-92.55
330	Rufina-2-4 20110826.raw	28/8/11 10:25	170.3	7.82	0.00	-92.37
331	Rufina-2-5 20110826.raw	28/8/11 10:35	170.3	8.01	0.00	-92.22
332	Ginnie-2-1 20110826.raw	28/8/11 10:44	168.7	8.03	0.00	-26.68
333	Ginnie-2-2 20110826.raw	28/8/11 10:54	168.2	7.91	0.00	-25.40
334	Ginnie-2-3 20110826.raw	28/8/11 11:03	168.3	8.05	0.00	-25.20
335	Ginnie-2-4 20110826.raw	28/8/11 11:13	168.1	7.98	0.00	-24.80
336	Ginnie-2-5 20110826.raw	28/8/11 11:23	168.0	8.07	0.00	-25.11
337	oubleDI-17-1 20110826.ra	28/8/11 11:32	170.4	7.80	0.00	-75.86
338	oubleDI-17-2 20110826.ra	28/8/11 11:42	169.8	8.75	0.00	-76.26
339	oubleDI-17-3 20110826.ra	28/8/11 11:52	170.6	7.72	0.00	-77.64
340	oubleDI-17-4 20110826.ra	28/8/11 12:02	170.4	8.01	0.00	-77.98
341	oubleDI-17-5 20110826.ra	28/8/11 12:12	170.7	7.70	0.00	-78.00