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Cancer Imaging Program

National Cancer Institute

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Preparation of GC Dilutions from Standard Solution Form

(Refer to GEN-Q112)

GCS- _____ **GCS Expiration Date: _____**

Date of Dilution Preparation: _____

Starting Concentrations of Analytes:

Gas Chromatography Standard

Acetone	0.5 g/ 10 mL	5 mg/mL	50,000 ppm	5.0%
DMSO	0.5 g/ 10 mL	5 mg/mL	50,000 ppm	5.0%
Acetonitrile	0.04 g/ 10 mL	0.4 mg/mL	4,000 ppm	0.4%

Dilutions:

½
¼
⅛
1/16

Dilution	Solution	Volume of Solution (mL)	Diluent	Volume of Diluent (mL)	Volume of Final Solution (mL)
½	GCS-				
¼	½ Solution				
⅛	¼ Solution				
1/16	⅛ Solution				

Label each Vial of GC Diluted Solution Standards.

Dilution	Gas Chromatography Standard		
½	Acetone	25,000 µg/mL	2.5%
	DMSO	25,000 µg/mL	2.5%
	Acetonitrile	2,000 µg/mL	0.2%
¼	Acetone	12,500 µg/mL	1.25%
	DMSO	12,500 µg/mL	1.25%
	Acetonitrile	1,000 µg/mL	0.1%
⅛	Acetone	6,250 µg/mL	0.625%
	DMSO	0.625 µg/mL	0.625%
	Acetonitrile	500 µg/mL	0.050%
1/16	Acetone	3,125 µg/mL	0.313%
	DMSO	3,125 µg/mL	0.313%
	Acetonitrile	250 µg/mL	0.025%

Prepared By: _____Date: _____

Signature

QC Review: _____ Date: _____

Signature

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