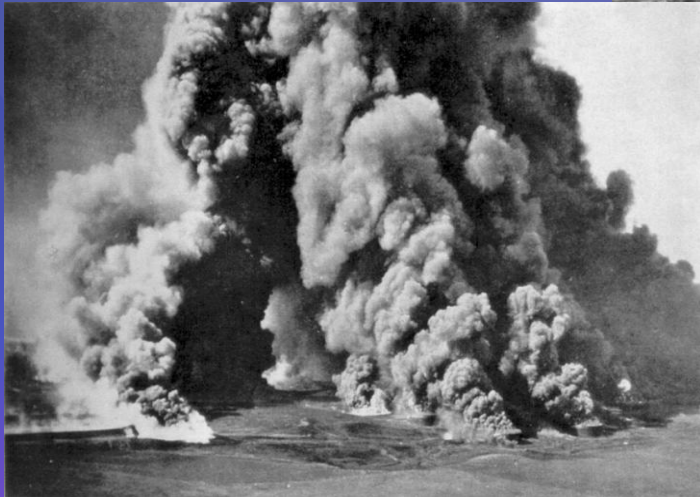


# Case Study – SPM/EDGE for Pre-Confirmation Soil Sampling Program



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# Outline Soil Sampling Case Study

- › EQUIS and the Project
- › Sampling and Analysis Plan (SAP) Description
- › Selection of Sample Plan Module (SPM) and EQUIS Data Gathering Engine (EDGE)
- › Implementation
  - › SPM
  - › EDGE
- › Was it good for you? Was it good for me?

# History – How We Got Where We Are Today

- › Project description
- › SPM – the not ready for prime time software
- › Phase B – manual sampling

# EQuIS and Project

- › Large Industrial Facility – EQuIS has been used for site for last 6 years first as EQuIS 3 then upgraded to EQuIS 5
- › Regulatory driven investigation of soil and groundwater. Multiple RPs and facilities
- › Soil only portion of DB has over 650,000 records in dt\_results for approximately 717 sample locations.

# Sampling and Analysis Plan

- › Purpose: Identify cut line for excavation of soil contaminated with chemicals of concern (COCs) with concentrations above the Nevada Division of Environmental Protection (NDEP) Basic Comparison Levels (BCLs)
  - › Concentrate on upper 10 feet.
  - › Schedule critical for completion of excavation by year end

# Sampling and Analysis Plan

- › 171 Boring Locations
  - › 2 Sonic Rigs
  - › 1 Geoprobe Rig
  - › 1 Asbestos Sampling crew (surface)
- › Sample depths 0 – 18 ft bgs (predominately 1 – 10 ft bgs)
- › 3 Labs
  - › Test America Denver and Sacramento
  - › EMSL New Jersey

# Sampling and Analysis Plan

- › Not all analyses at all locations
- › Analyses
  - › 8-hr TAT for Hexachlorobenzene (HCB) (SW8081M)
  - › 24-hr TAT Dioxin screen (8290 Screen)
  - › 3-d TAT Arsenic, Cobalt, Lead, Manganese, Magnesium
  - › 3-d TAT Perchlorate (EPA 314.0)
  - › 3-d TAT PAH (SW8270C)
  - › 3-d TAT Pesticides (SW8081A)
  - › 15-d TAT Asbestos by Elutriator

# Sampling and Analysis Plan

- › Schedule
  - › Initial sampling to be completed in 2-weeks with step-out samples to follow
- › Week 1 and 2
  - › 2200 + Samples at 151 locations



## **Problem:**

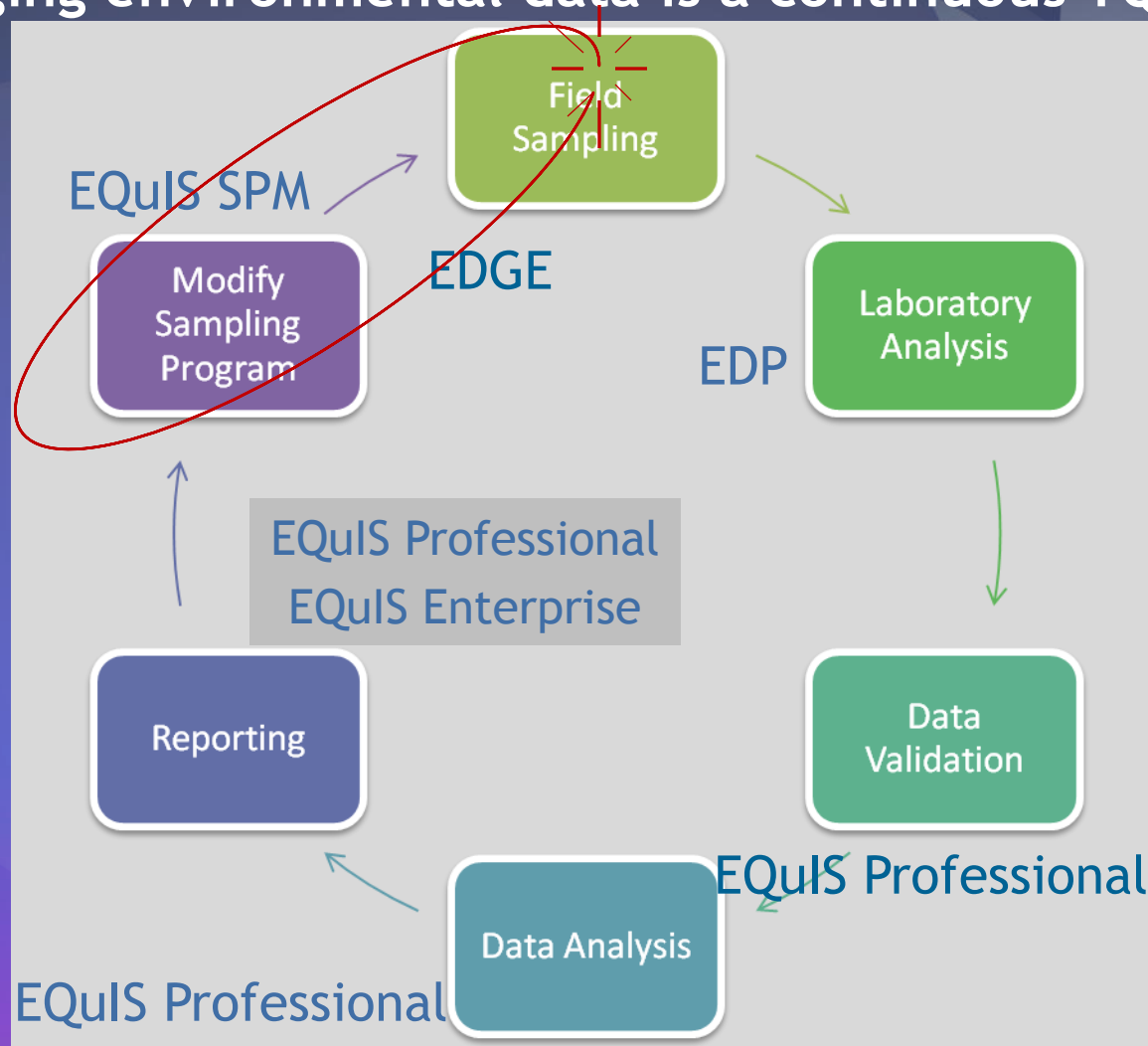
- › Manage field activities with short data turnaround for screen samples
- › Prepare labels and COCs easily
- › Minimize errors and corrections to COCs and laboratory instructions

## **Solution:**

**Sample Planning Module (SPM)/EDGE**

# Field Data – The Weak Link!

Managing environmental data is a continuous TQM process



# Tales From The Field

## Example Errors....

		Date	Time	
1	P1D	7/21	7:00A	2A
2	P1D-D		7:22A	2A
3				

P1D, NOT

P1D

sys_sample_code	sys_loc_code	sample_source
C05110901-009	P1D	FIELD
C06020772-008	P1D	FIELD
C06050793-006	P1D	FIELD
C06080962-001	P1D-D	FIELD

# Tales From The Field

## Example Errors....

From: [REDACTED]  
To: [REDACTED]; [REDACTED]; [REDACTED]; alek.hage@earthsoft.com; [REDACTED]  
Cc: [REDACTED]; [REDACTED]  
Subject: RE: W9J0195 rpt, coc & subcont.

Message [REDACTED] (1 KB)

A couple issues came up compiling the EDD for this work order ([REDACTED]).

Sys_Loc_Code	Lab_RDL	Cas_Rn	Result_Valu	Detect_Fl	fraction	Test_Type
Sys_Loc_Code	LAB_Report_Li	CAS_RN	Result_Valu	Detect_Flag	FRACTIO	TEST_TYPE
CLYDESDALE RD		PH_LAB	7.59	Y	N	INITIAL
CLYDESDALE RD BERM		PH_LAB	7.77	Y	N	INITIAL
CLYDESDALE TOE OF BERM		MOIST	7.2	Y	N	INITIAL
CLYDESDALE TOE OF BERM	25	107-21-1	25	N	N	INITIAL
CLYDESDALE TOE OF BERM	25	TPH-D	25	N	N	INITIAL
CLYDESDALE TOE OF BERM	100	TPH-MO	100	N	N	INITIAL
CLYDESDALE TOE OF BERM		PH_LAB	7.62	Y	N	INITIAL

Field size exceeded, rejected by the database...

- Six people received the email
- Fixing these errors is a labor-intensive process

# Tales From The Field

## Example Errors....

Sample Identification  
SIMZ W8J00

Sample Designation  
Storm Waste Rock  
SE-83, SE-84

Time of Day: \_\_\_\_\_

Recorded by: \_\_\_\_\_

Waste Type \_\_\_\_\_

FIELD DATA  
pH \_\_\_\_\_

**One Sample ID, but...**

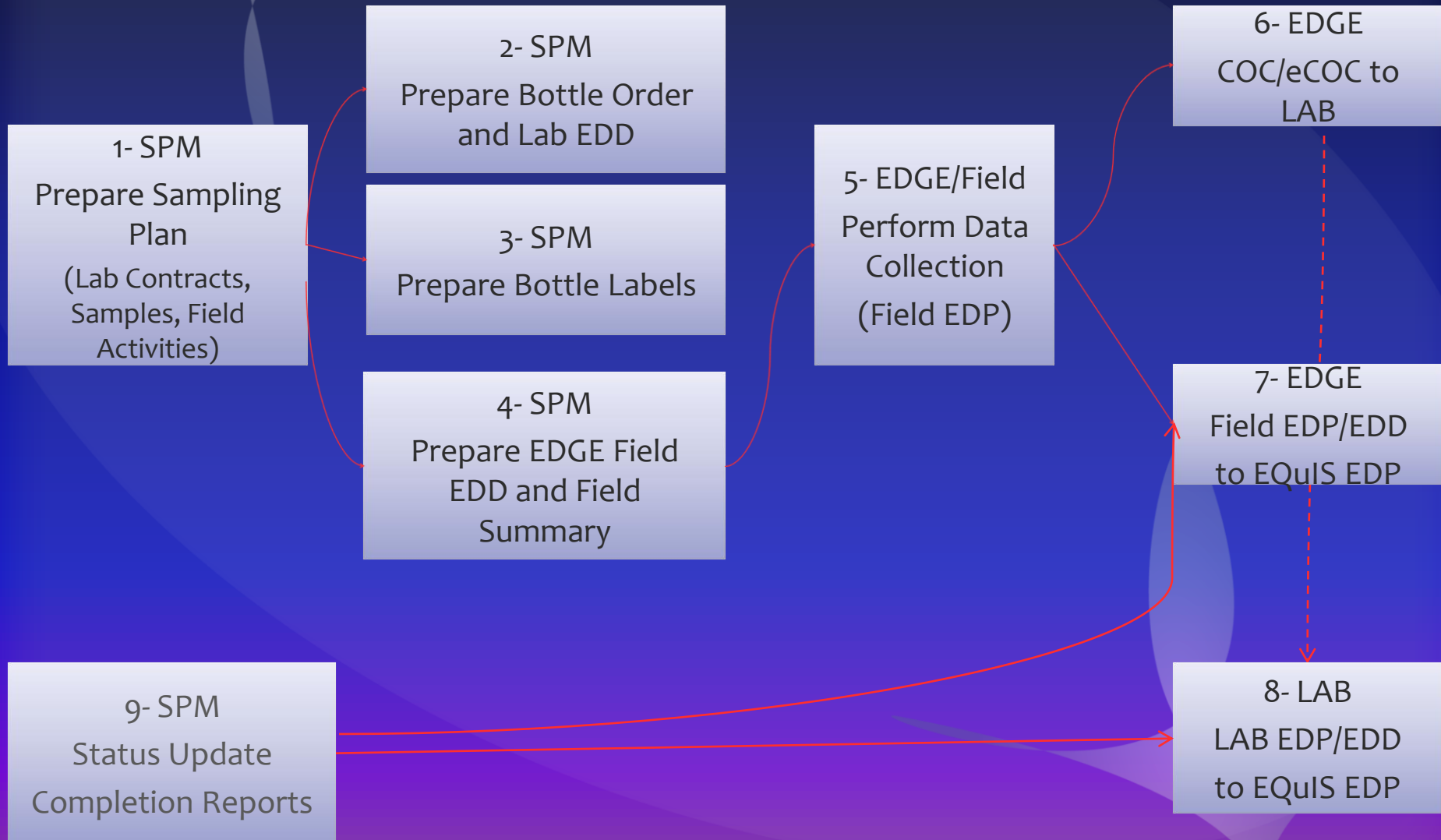
**...two samples**

Errors here results in the following:

- The COC needs to be corrected and resubmitted to the lab.
- The lab needs to revise the lab report.
- The database needs to be changed.

# How: SPM and EDGE?

## Field Data Management Work Flow



# Input Model – from PM to SPM

Line No GBP	COC #	Boring ID	Rig	Drilling Date planned/ actual	Rem. Zone	Grid	Sample Depths	Chemical C	Number	Analyt	f Conc	n and E	or An	te Group	alytical M	hod	FDs	MS/MSD note: no MSD on screens	FBs/ EBs							
								1 Dioxin 1,000 ppt	2 HCB 1.2 mg/kg	4 Arsenic 1.77 mg/kg	5 Cobalt 331 mg/kg	5 Lead 800 mg/kg	5 Mg 100,000 mg/kg	5 Mn 13,700 mg/kg	6 Perchlorate 795 mg/kg	8/9 SVOCs PAHs				10 OCPs						
								EPA 8290 screen/ EPA 8290 conf.	EPA 8081m screen/ EPA 8270C conf.	EPA 6010B 6020	EPA 6010B 6020	EPA 6010B 6020	EPA 6010B 6020	EPA 6010B 6020	EPA Method 314.0	EPA Method 8270C (Full Suite)				EPA Method 8081A (Full Suite)	Number denotes sample depth	Number denotes sample depth				
1	1820 TAD 1821 TAS	RSAQ3	R1	4/6/2010/ 4/6/2010	1-2 RZ-B	Q3	3' FD 4' 5' 6' 7' 8' 9'	X X Hold Hold Hold Hold Hold		X Hold X Hold Hold Hold Hold					X Hold X Hold Hold Hold Hold							3'				
2	1820 TAD 1821 TAS	SA169	R1	4/6/2010/ 4/6/2010	1-2 RZ-B	Q3	3' 4' 5' 6' FD 7' 8' 9'	X X Hold Hold Hold Hold Hold							X Hold X Hold Hold Hold Hold							6 (SVOC)				
3	1823 TAD	SA110	R1	4/6/2010/ 4/7/2010	1-2 RZ-B	R3	3' 4' 5' 6' 7' 8' 9'								X Hold X Hold Hold Hold Hold											
4	1823 TAD	SA204	R1	4/6/2010/ 4/7/2010	1-2 RZ-B	Q4	3' 4' 5' 6' 7' 8' 9'			X Hold X Hold Hold Hold Hold																
5	1823 TAD	SA203	R1	4/6/2010/ 4/7/2010	1-2 RZ-B	Q4	2' FD 4' 6' 8'			X X X X														2'		
6	1822 TAS 1823 TAD	SA84	R1	4/7/2010 / 4/7/2010	1-2 RZ-B	Q4	3' FD 4' 5' 6' 7' 8' 9'	X X Hold Hold Hold Hold Hold	X X Hold Hold Hold Hold Hold	X Hold X Hold Hold Hold Hold					Hold Hold Hold Hold Hold Hold Hold								3			

# SPM – Tasks

EquiS SPM

Plan Calendar COCs / Labels Reports

New Plan Open Plan Details Contracts New Remove Edit Schedule Unschedule Refresh View Manage Groups Create Locations

Plan Planned Tasks Tools

Plan Information

Plan Code: RMZ-B TEST

Description: Test Plan

Client: [Redacted]

Start Date: 03/24/2010 End Date: 03/12/2011

Remark:

Plan Overview

Status	Planned Task Code	Task Recurrence	Start Date	End Date	Task Type	Remark
N/A	Sandbox	Once	04/11/2010	04/11/2011		
N/A	Wk3Tab6	Once	04/19/2010	04/30/2011		14 additional locations per Table 6
N/A	Asbestos Week 1	Once	04/05/2010	04/09/2010		Asbestos Brendan/Kevin Week 1
N/A	Week 1 Extra EB	Once	04/12/2010	04/13/2010		Equipment blanks added to Week 1 samples not...
N/A	Rig 2 Week 1	Once	04/06/2010	04/09/2010		Soil Becki Dano Week 1
N/A	Rig 2 Week 2	Once	04/12/2010	04/15/2011		Soil Becki Dano Week 2
N/A	Rig 1 Week 1	Once	04/06/2010	04/09/2010		Soil Dana Brown Week 1
N/A	Rig 1 Week 2	Once	04/12/2010	04/16/2010		Soil Dana Brown Week 2
N/A	Rig 3 Week 1	Once	04/06/2010	04/09/2010		Soil Randy Rowley Week 1
N/A	Rig 3 Week 2	Once	04/12/2010	04/16/2010		Soil Randy Rowley Week 2
N/A	Asbestos Week 2	Once	04/12/2010	04/16/2010		Week 2 Asbestos Sampling [Redacted]
N/A	Asbestos Week 3	Once	04/19/2010	04/23/2010		Week 3 Asbestos Sampling [Redacted]

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# SPM – Containers

SPM 5.1 - Contracts

Contracts

Add Remove Import

TAD  
EMSL  
TAS

Contract Info

Sampling Company: TESTAMERICA, DENVER, CO Contract Start Date: 03/24/2010 End Date: 03/1/10

Billing Contract: Michael Phillips

Reporting Contract:

Show All Contacts

Remark: Michael Phillips

Containers Analytic Methods Method Analyte Groups

Add Remove Edit

Containers

Remark	# Of Containers	Container Size	Container Size Un	Container Color	Container Type
1 L Glass	2	1	l	Amber	1 L Amber Glass
2 oz glass 8081	1	2	oz	Clear	Glass
2 oz Glass Shared	1	2	oz	Clear	Glass
250 ml Plastic	1	250	ml	Clear	Plastic
2-oz Glass Perc	1	2	oz	Clear	Glass
4-oz Glass	1	4	oz	Clear	Glass
500 ml Plastic	1	500	ml	Clear	Plastic
8-oz Glass	1	8	oz	Clear	Glass

Save Cancel

# SPM – Analytic Methods

SPM 5.1 - Contracts

Contract Info

Sampling Company:  Contract Start Date:  End Date:

Billing Contract:

Reporting Contract:

Show All Contacts

Remark:

Analytic Methods

Analytic Method	Matrix Code	Filtered	Preservative	Max Turnaro	Cost	Container	Shared Cont	# Of Containers	Container	Container Size U	Contain	Container	Remark
EPA 314	W	N	UNPRES	15.00	0.00	250 ml Plastic	<input type="checkbox"/>	1	250	ml	Clear	Plastic	Aqueous Per...
EPA 314.0	SO	N	UNPRES	3.00	0.00	2-oz Glass Perc	<input type="checkbox"/>	1	2	oz	Clear	Glass	
SW 846 6010B	SO	N	UNPRES	3.00	0.00	2 oz Glass Shar...	<input checked="" type="checkbox"/>	1	2	oz	Clear	Glass	Shared
SW 846 6010B	W	N	HNO3	15.00	0.00	500 ml Plastic	<input type="checkbox"/>	1	500	ml	Clear	Plastic	Aqueous Met..
SW 846 8081	SO	N	UNPRES	3.00	0.00	8-oz Glass	<input type="checkbox"/>	1	8	oz	Clear	Glass	
SW 846 8081A	W	N	UNPRES	15.00	0.00	1 L Glass	<input type="checkbox"/>	2	1	l	Amber	1 L Amber GL..	Aqueous OCP
SW 846 8081M	SO	N	UNPRES	1.00	0.00	2 oz glass 8081	<input type="checkbox"/>	1	2	oz	Clear	Glass	
SW 846 8270C	SO	N	UNPRES	3.00	0.00	8-oz Glass	<input type="checkbox"/>	1	8	oz	Clear	Glass	
SW 846 8270C	W	N	UNPRES	15.00	0.00	1 L Glass	<input type="checkbox"/>	2	1	l	Amber	1 L Amber GL..	Aqueous 8270

# Labels

EQiS SPM

Plan Calendar COCs / Labels Reports

Open Report Bottle Request Labels Lab EDD Task(s) Summary EDGE EDD COC(s) Summary Upcoming Tasks Completeness - Summary Completeness - Detailed

Actions Common Reports

SPM5 - Labels

Pick Reports:

- Plan Code
  - RMZ-B TEST
- Start Date:
  - 04/05/2010
- End Date:
  - 04/23/2010
- Task Code(s)
  - Wk3\_Tab6-17
- Labs
  - TAD
- Analyte Groups
  - PhB-Pesticides | PhB-SVOCs

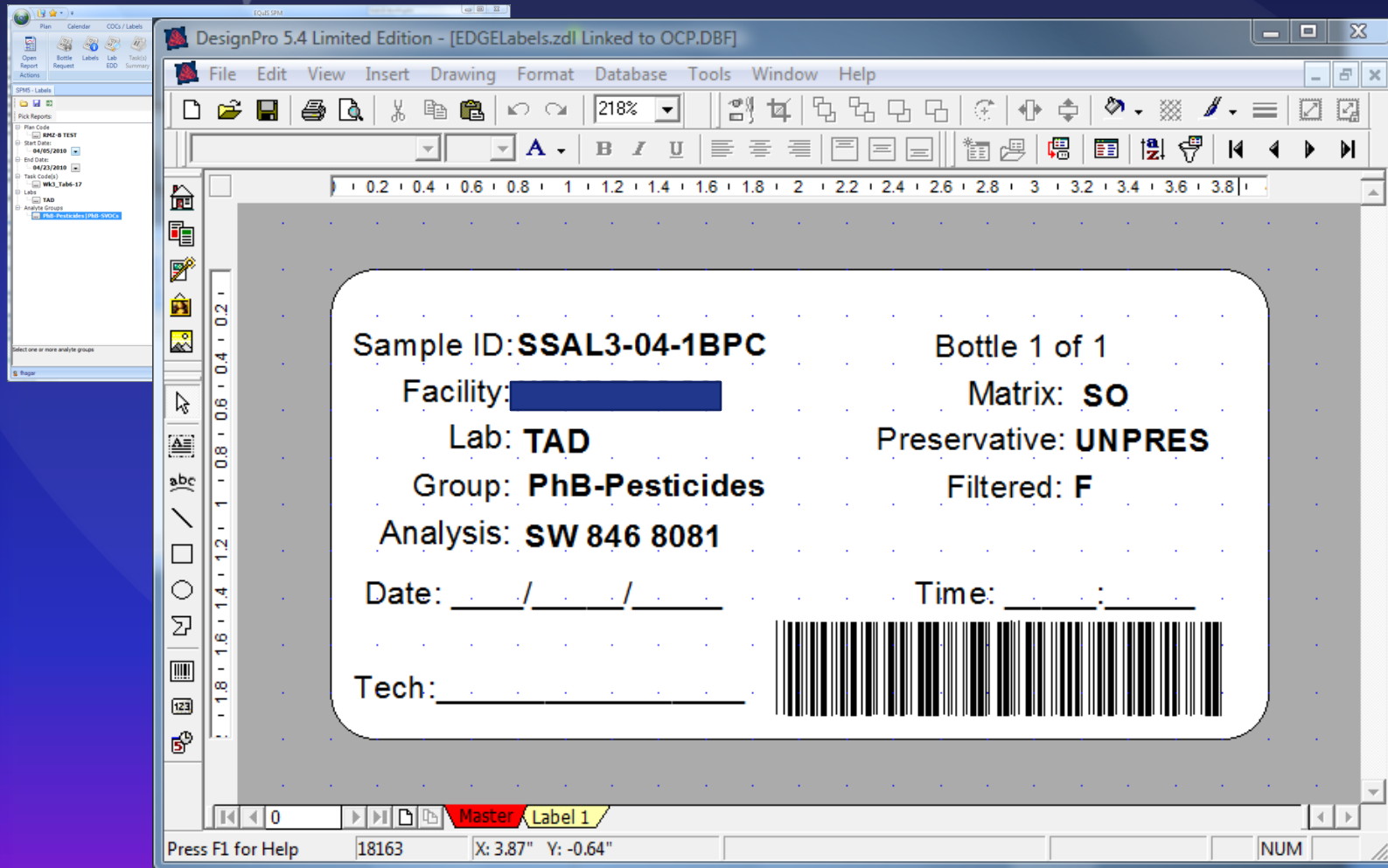
Analyte Groups

- analyte\_group
- PhB-RadiochemicalREP
- PhB-SPM-4025
- PhB-SPM-8081M
- PhB-SPM-8290 Screen
- PhB-SPM-Arsenic
- PhB-SPM-Cobalt
- PhB-SPM-HCB8270
- PhB-SPM-Lead
- PhB-SPM-Mg
- PhB-SPM-Mn
- PhB-SVOCs
- PhB-TPH\_DRO-ORO
- PhB-TPH\_GRO
- PhB-VOCs
- PhB-Wetchem-Chlorate
- PhB-WetChem-Chloride
- PhB-WetChem\_9056
- PhB-Wetchem\_Alk
- PhB-Wetchem\_All

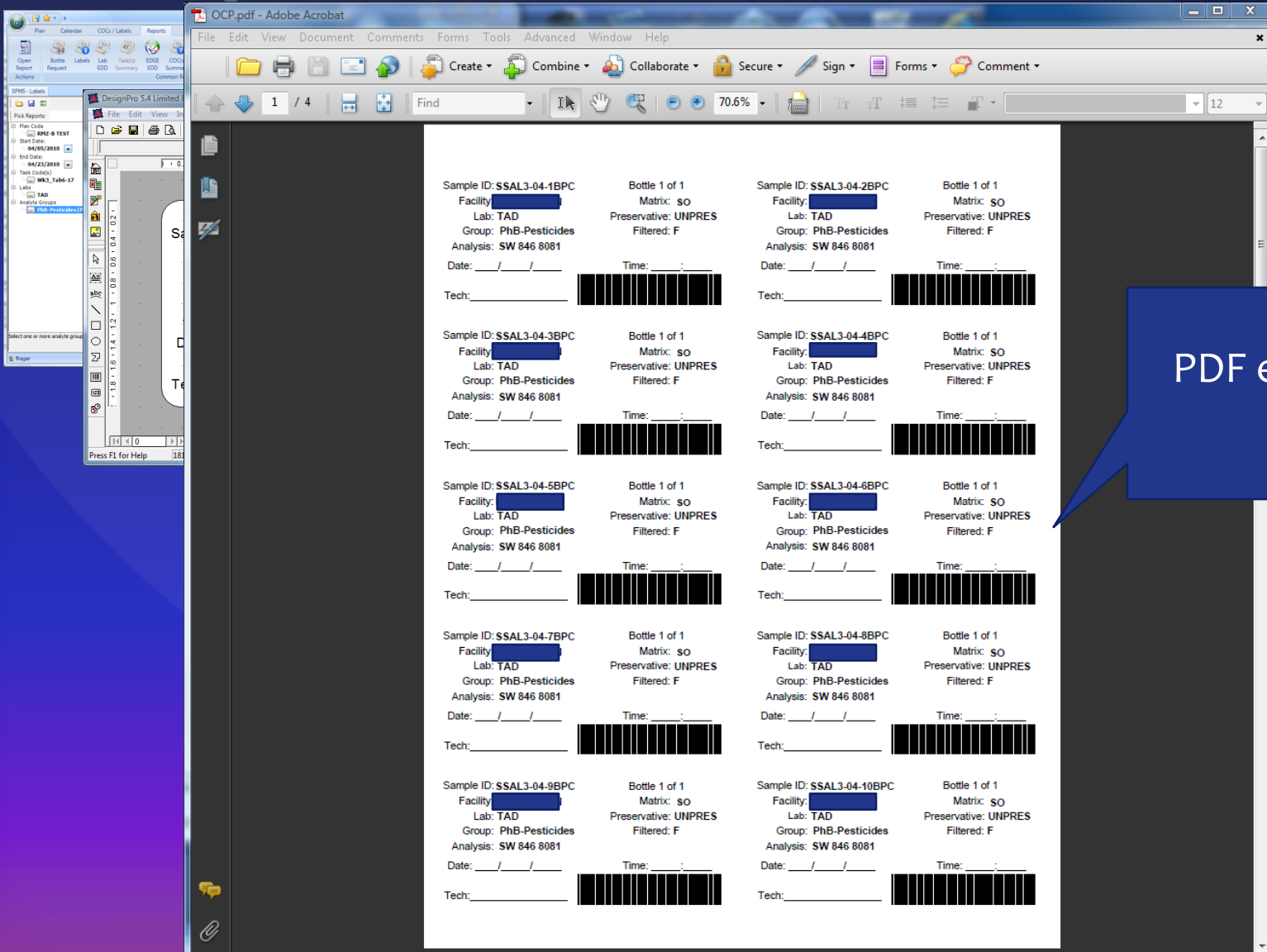
Select one or more analyte groups

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# Labels – Avery Design Pro 5.4 Limited Edition



# Labels – Avery Design Pro 5.4 Limited Edition



PDF emailed to  
field

# EDGE Implementation

- › Use of Netbooks – 4 field crews, 3 rigs, one asbestos sampling crew.
- › Software roll out and updates
- › Field EDD distribution
- › How to get EDD returns for incorporation into EQuIS

# EDGE Implementation

- › Netbooks – Typical \$350, 1GB memory, 10 to 12 - inch screens, Atom processor, 160 GB hard drive, Windows 7

Pros	Cons
<b>Low Price</b> – A lot of netbooks can go under the wheels for price of a ruggedized laptop	<b>Small screen</b> , direct sunlight impaired
<b>Low Maintenance</b> – Long Battery Life (10 hrs)	<b>Dainty</b> scared the ham-fisted, old-time rig geologists
<b>Easily Transportable</b>	
<b>Fully Capable</b> ( 2 ports, wireless internet)	

# EDGE Implementation

- › Software roll out and updates
  - › Installs through a zipped executable emailed or FTP'd to field (16 mb Zip File)
  - › Installs with no administrator privilege required
  - › Installs to desktop so that directory structure for users is accessible
  - › Updates to RVF may be necessary. Send RVF to be inserted into user/EDGE/FORMATS/EQEDD\_EDGE.ZIP
  - › COC Templates emailed and installed in user/EDGE/FORMATS/EQEDD\_EDGE.ZIP

# EDGE In the Field

EarthSoft EDGE

Home Interfaces

New Open Save EDP Export Open Format New Task Edit Task Setup Backups Manage Locations Facility Info COC Reports

Field EDD

Location Chooser/Filter Filters Locations (659)

Task: Location Group(s): Location Type(s): Location Contains... Location Does Not Contain... Completeness:

Row(s): Add Remove Copy Paste Auto Fill Refresh Maximize View:

Water Levels Field Samples Activities Purge Rates

Field Samples

Location Code	Sampling Date	Sample ID	Sampling Time (24hr)	Sent to Lab Date	Sample Type	Matrix	Start Depth	End
RSAJ7		RSAJ7-6BPC			N	SO	6	7
RSAJ7		RSAJ7-7BPC			N	SO	7	8
RSAJ7		RSAJ7-8BPC			N	SO	8	9
RSAJ7		RSAJ7-9BPC			N	SO	9	10
SSAJ8-02		SSAJ8-02-1B...			N	SO	1	2
SSAJ8-02		SSAJ8-02-2B...			N	SO	2	3
SSAJ8-02		SSAJ8-02-3B...			N	SO	3	4
SSAJ8-02		SSAJ8-02-4B...			N	SO	4	5
SSAJ8-02		SSAJ8-02-5B...			N	SO	5	6
SSAJ8-02		SSAJ8-02-6B...			N	SO	6	7
SSAJ8-02		SSAJ8-02-7B...			N	SO	7	8
SSAJ8-02		SSAJ8-02-8B...			N	SO	8	9
SSAJ8-02		SSAJ8-02-9B...			N	SO	9	10
SSAJ8-02		SSAJ8-02-10...			N	SO	10	11
RSAK8		RSAK8-1BPC			N	SO	1	2
RSAK8		RSAK8-2BPC			N	SO	2	3
RSAK8		RSAK8-3BPC			N	SO	3	4
RSAK8		RSAK8-4BPC			N	SO	4	5
RSAK8		RSAK8-5BPC			N	SO	5	6

Field Chemistry

Row(s): Add Remove Parameters: Lock Choose Individual Choose Group Print Grid

Sample ID Location Code Time SPM Scheduled Date SPM Task Code

Intelligent Bar

17 - Column: Location Code, Text(20): Soil boring or well installation location. Must be a valid code for the facility and reported in the sys\_loc\_code field of the location file. Field should be null if field QC sample ( 16 - Column: Start Depth, Numeric: Beginning depth (top) of sample in feet below ground surface. Leave null for most ground water samples from monitoring wells. Database will derive this information from the s 15 - Column: Matrix, Text(10): Code which distinguishes between different types of sample matrix. For example, soil samples must be distinguished from ground water samples, etc.

Facility: Plan: RMZ-B TEST Format: C:\Users\adminfrank\Desktop\EDGE\Formats\IEQEDD\_EDGE.zip EDD: C:\Users\adminfrank\Desktop\EDGE\Temp\_Edd\ALLRigs\_4\_22\_2010.xls

# SPM Completeness Report

Facility Code:						
Plan Code:		PCS Sampling - Asbestos				
<b>Field Samples</b>						
		<b>Scheduled</b>			<b>Unscheduled</b>	
		<b>Samples</b>		<b>Locations</b>		<b>Samples</b>
		<b>Count</b>	<b>Count</b>	<b>Count</b>	<b>Count</b>	<b>Count</b>
<b>Task</b>	<b>Completed (%)</b>	<b>Count</b>	<b>Completed (%)</b>	<b>Count</b>	<b>Count</b>	<b>Count</b>
PC-ASB-15	85	36/42	85	24/28	2	1
PC-ASB-16	100	44/44	100	23/23	2	1
PC-ASB-17	84	32/38	84	16/19	0	0
PC-ASB-18	100	8/8	100	4/4	0	0
PC-ASB-19	0	0/9	0	0/4	0	0
		<b>124/145</b>			<b>69/80</b>	<b>TOTALS</b>
<b>Missing Samples</b>						
<b>Missing Samples</b>	<b>Samples</b>	<b>Locations</b>	<b>Comment</b>			
PC-ASB-15	SA04	SA04	No Soil for 150'			
	SA05	SA05	No Soil - See SA136 for closest results			
	SSAR6-01-0.00BPC	SSAR6-01	No soil - asphalt and debris			
	SSAR6-01-0.33BPC	SSAR6-01	No soil - asphalt and debris			
	SSAR6-02-0.00BPC	SSAR6-02	No soil - asphalt and debris			
	SSAR6-02-0.33BPC	SSAR6-02	No soil - asphalt and debris			
PC-ASB-16	<b>Complete</b>					
PC-ASB-17	SA19-0.33BPC	SA19	No soil within 200ft see SSAL5-03 for results			
	SA19-0.33BPC_FD	SA19	No soil within 200ft see SSAL5-03 for results			
	SSAL5-01-0.00BPC	SSAL5-01	No soil see SSAL5-03 for results			
	SSAL5-01-0.33BPC	SSAL5-01	No soil see SSAL5-03 for results			
	SSAL5-02-0.00BPC	SSAL5-02	No soil see SSAL5-03 for results			
	SSAL5-02-0.33BPC	SSAL5-02	No soil see SSAL5-03 for results			
PC-ASB-18	<b>Complete</b>					
PC-ASB-19	SSAK5-03-0.00BPC	SSAK5-03	Week of 5/10			
	SSAK5-03-0.33BPC	SSAK5-03	Week of 5/10			
	SSAK5-04-0.00BPC	SSAK5-04	Week of 5/10			
	SSAK5-04-0.00BPC_FD	SSAK5-04	Week of 5/10			
	SSAK5-04-0.33BPC	SSAK5-04	Week of 5/10			
	SSAL5-06-0.00BPC	SSAL5-06	Week of 5/10			
	SSAL5-06-0.33BPC	SSAL5-06	Week of 5/10			
	SSAN5-02-0.00BPC	SSAN5-02	Week of 5/10			
	SSAN5-02-0.33BPC	SSAN5-02	Week of 5/10			

Note 1: The number within the task name (PC-ASB-15) refers to the week that it was scheduled for sampling.

Note 2: The unscheduled samples were omitted from EQUIS SPM but were included in the sample plan and therefore were sampled

Note 3: Totals include the scheduled and unscheduled samples.

# Success: Yes

- › Sampling for this phase completed yesterday
- › 225 COCs, 3700 labels/samples
- › Manpower
  - › 1 EQuIS/SPM DBA (full time)
  - › 1 Data Technician (50 %)
  - › 1 Field Data Technician (full time +)
  - › 1 Chemist (40 %)
  - › 1 Project Manager
- › 65 % of the lab data has been returned, loaded and sent to validation

## Success: No

- › Field use of EDGE not accepted and fully incorporated into the program by field personnel
- › EDGE did become a valuable office tool since not all field crews embraced it
- › Field QC data was labor intensive to incorporate into program
- › Software improvements being made as we speak
  - › SPM V5.0 is in pre-release

# Activities

**Planned Task: \_\_\_**

Task Parameters | Custom Dates | Schedule Preview | **Activities** | Samples | Containers

Actions

+ Water Levels    + Flow    + Soil Gas    + Add Other Activities    - Remove

Activities

**Support for more activities**

sys\_loc\_c ▾ | activity\_code ▾ | activity\_type ▾ | activity\_order ▾ | sampler ▾ | sampling\_company\_code ▾ | remark ▾

+ Add Activity Type    - Remove Activity Type

Drag a column header here to group by that column.

Activity Type Code ▾	Activity Type Description ▾
Alek Form	Custom Form
Calibration	Calibration
TEst	
Well Inspection	Well Inspection

+ Add Activity    - Remove Activity

Drag a column header here to group by that column.

Activity Type ▾	Activity Code ▾	Activity Description ▾
Well Inspection	COND_DAMAGE	Has there been physical d.
Well Inspection	COND_GEN	Is the concrete pad in goo..
Well Inspection	COND_RUNOFF	Flush mount - Is it secure f.

OK    Cancel

New Activity Manager to manage custom field forms in EDGE and SPM

# Samples on Hold

(During Planning)

Task Parameters Custom Dates Schedule Preview Activities **Samples** Containers

New Sample

Sample Type: N

Sample Actions

Samples

Sys Sample Code	Sample Name	Sys Loc Code	Matrix Code	Sampling Company Code	Sampler
RSAJ5-051910	RSAJ5-051910	RSAJ5	SO	ACU	
Lab Code	Spm Contract Mag	Contract Method	On Hold		
TAS	PhB-SPM-8290 Screen	8290 MOD	Yes		
TAS	PhB-Dioxins_Furans	SW 846 8290			
Sys Sample Code	Sample Name	Sys Loc Code	Matrix Code	Sampling Company Code	Sampler
RSAJ6-051910	RSAJ6-051910	RSAJ6	SO	ACU	
RSAJ7-051910	RSAJ7-051910	RSAJ7	SO	ACU	
RSAJ8-051910	RSAJ8-051910	RSAJ8	SO	ACU	

It can be done from the samples tab

Or during samples setup

Medium:  Composite:

Hold:  (for selected MAGs only) Source:

Sample Depth: Not set

Select one (or more) location or group

Sys Loc Code	Loc Name	Subfacility Code	Loc Type
[No Group] (87 items)			
Area 1 SO BR Series (25 items)			
Area 2 SO BR Series (31 items)			
Area I GW (64 items)			

Select one (or more) Contract Method Analyte Group

Lab Code	Remark	Method Analyte Group Code
TAS	Soil 8290 Screen	PhB-SPM-8290 Screen
TAS		PhB-Dioxins_Furans
TAS	8290 Water	PhB-Dioxins_Furans

# Samples on Hold

(After Scheduling)

Manage hold status for Scheduled tasks.

The screenshot shows a software interface with several tabs: Task Parameters, Custom Dates, Schedule Preview, Activities, Samples, and Containers. The 'Samples' tab is active. Below the tabs, there is a 'New Sample' section with a 'Sample Type' dropdown and an 'Add' button. To the right, the 'Sample Actions' section contains four buttons: 'Remove', 'Put On Hold', and 'Cancel Hold'. Two red arrows point from the text 'Manage hold status for Scheduled tasks.' to the 'Put On Hold' and 'Cancel Hold' buttons. Below these sections is a table with columns for sample details and a 'start\_depth' column.

sys_sample_code	sample_name	sys_loc_code	matrix_code	sampling_company_code	sampler	start_depth
SSAQ4-01-0.00BPC	SSAQ4-01-0.00BPC	SSAQ4-01	SO	NORTHGATESCAL		0
SSAQ4-01-0.33BPC	SSAQ4-01-0.33BPC	SSAQ4-01	SO	NORTHGATESCAL		0.33
SSAQ4-03-0.00BPC	SSAQ4-03-0.00BPC	SSAQ4-03	SO	NORTHGATESCAL		0
SSAQ4-03-0.33BPC	SSAQ4-03-0.33BPC	SSAQ4-03	SO	NORTHGATESCAL		0.33
SSAR4-03-0.00BPC	SSAR4-03-0.00BPC	SSAR4-03	SO	NORTHGATESCAL		0
SSAR4-03-0.33BPC	SSAR4-03-0.33BPC	SSAR4-03	SO	NORTHGATESCAL		0.33
SSAR4-01-0.00BPC	SSAR4-01-0.00BPC	SSAR4-01	SO	NORTHGATESCAL		0
SSAR4-01-0.33BPC	SSAR4-01-0.33BPC	SSAR4-01	SO	NORTHGATESCAL		0.33
SSAR5-01-0.00BPC	SSAR5-01-0.00BPC	SSAR5-01	SO	NORTHGATESCAL		0
SSAR5-01-0.33BPC	SSAR5-01-0.33BPC	SSAR5-01	SO	NORTHGATESCAL		0.33
SSAR6-01-0.00BPC	SSAR6-01-0.00BPC	SSAR6-01	SO	NORTHGATESCAL		0
SSAR6-01-0.33BPC	SSAR6-01-0.33BPC	SSAR6-01	SO	NORTHGATESCAL		0.33

# Calendar

(more features and filtering added)

**Tasks**

**Status filter:**

- Past due, not completed
- Planned
- Scheduled, no data
- Scheduled, partially completed
- Scheduled, fully completed

**Date filter:**

Hide Past Tasks

All upcoming tasks

Next  day(s)

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- Asbestos Week 1
- Asbestos Week 2
- Asbestos Week 3
- Daily Inspection
- MonthlyGW
- Rig 1 Week 1
  - Rig 1-15
- Rig 1 Week 2
- Rig 2 Week 1
- Rig 2 Week 2
- Rig 3 Week 1

**Calendar Preview**

April 2010							May 2010							June 2010							July 2010							August 2010						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
28	29	30	31	1	2	3						1	1	2	3	4	5			1	2	3	1	2	3	4	5	6	7					
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	18	19	20	21	22	23	24	18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	23	24	25	26	27	28	29	23	24	25	26	27	28	29	30	25	26	27	28	29	30	31	29	30	31	1	2	3	4
							30	31																				5	6	7	8	9	10	11

**Filter by task status or dates**

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**Calendar**

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>Apr 4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
4/4		<span style="color: red;">●</span> PC-ASB-15	<span style="color: green;">●</span> Rig 2-15			<span style="color: red;">●</span> Rig 3-15	
	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
4/11		<span style="color: red;">●</span> Rig 1-16					
	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
4/18		<span style="color: red;">●</span> PC-ASB-17					
	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>May 1</b>

# Other Changes

- › Ability to change `sys_sample_code` for scheduled tasks (special cases only: blanks and QA/QC samples)
- › Improved performance issues. Added a refresh `rt_tables` button to main menu
- › Conflict detection with highlighted duplicates tasks or samples similar to EDP (`sys_sample_codes` and `task_codes` have to be unique across a facility).
- › Now SPM fully support both SQL and Oracle databases.

Questions???

