

Lunar and Planetary Science Conference, March 18th, 2015

COMMUNITY USER WORKSHOP
ON PLANETARY LIBS (CHEMCAM)
DATA

Using the PDS Analyst's Notebook with ChemCam

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PSD Geosciences Node

18 Mar 2015

ChemCam Community Workshop





PDS data archives

- The Planetary Data System (PDS) is a NASA organization that archives science data from NASA's planetary missions.
- One or more data sets are defined for each mission instrument based on the data products produced.
- An **archive volume** is created for each data set.



What is an archive volume?

- Archive volumes contain not only the scientific data, but information necessary to understand the data, including documentation that details
 - science objectives
 - instrument configuration and calibration
 - data acquisition, processing, and format
 - errata and other special considerations








Archive volume components

- Archived Data
 - Standard EDR and RDR data products
- Documentation
 - Software Interface Specification
 - Spacecraft and instrument reports
- Calibration Data
 - Calibration reports and data



PDS Community

Archive volume file structure

-  calib
-  catalog
-  data
-  document
-  index
-  aareadme.txt
-  errata.txt

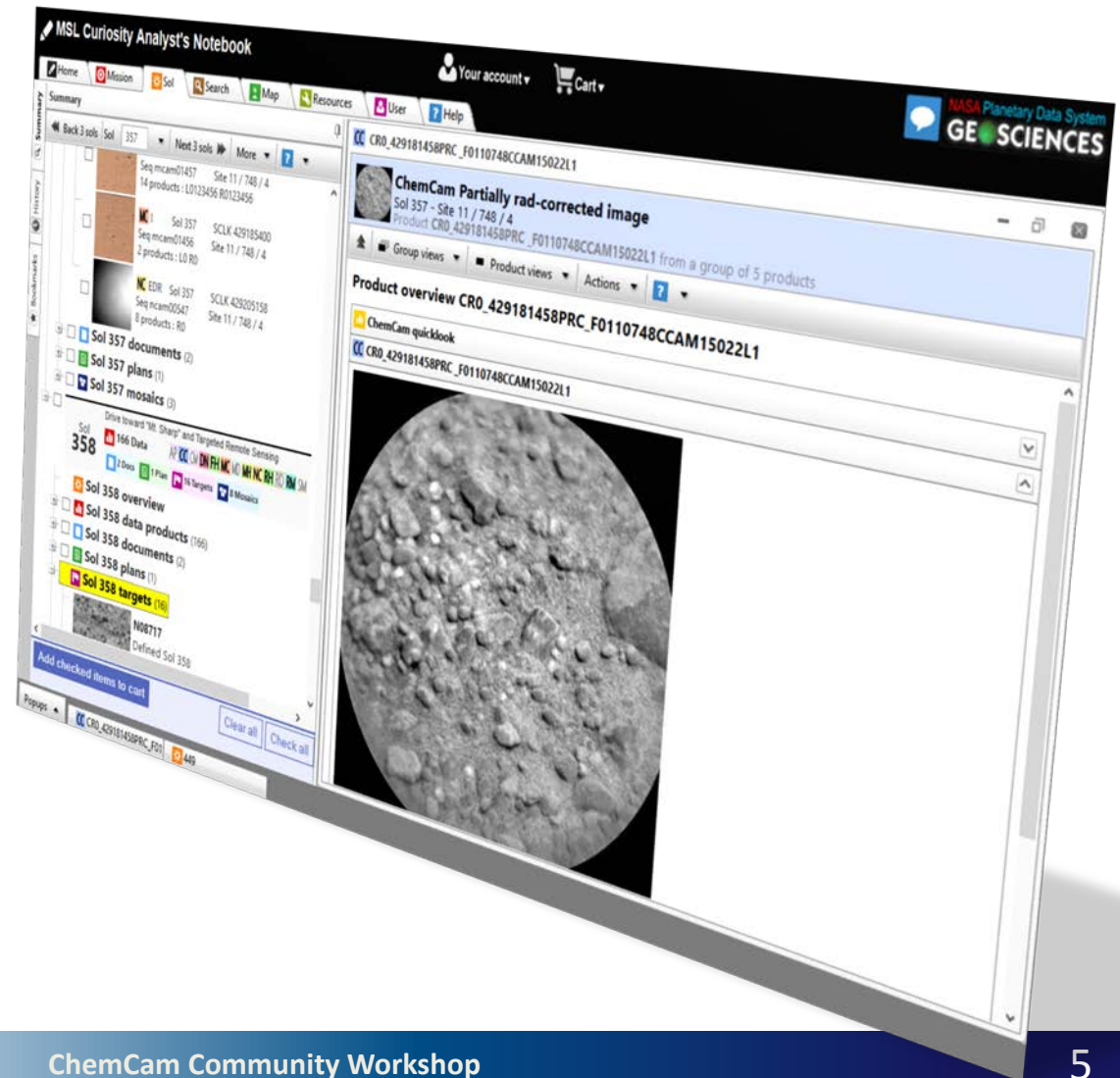
```

geodata.rsl.wustl.edu - /mer/mer1-m-pancam-3-radcal-rdr-v1
/mer1pc_1xxx/data/sol0004/

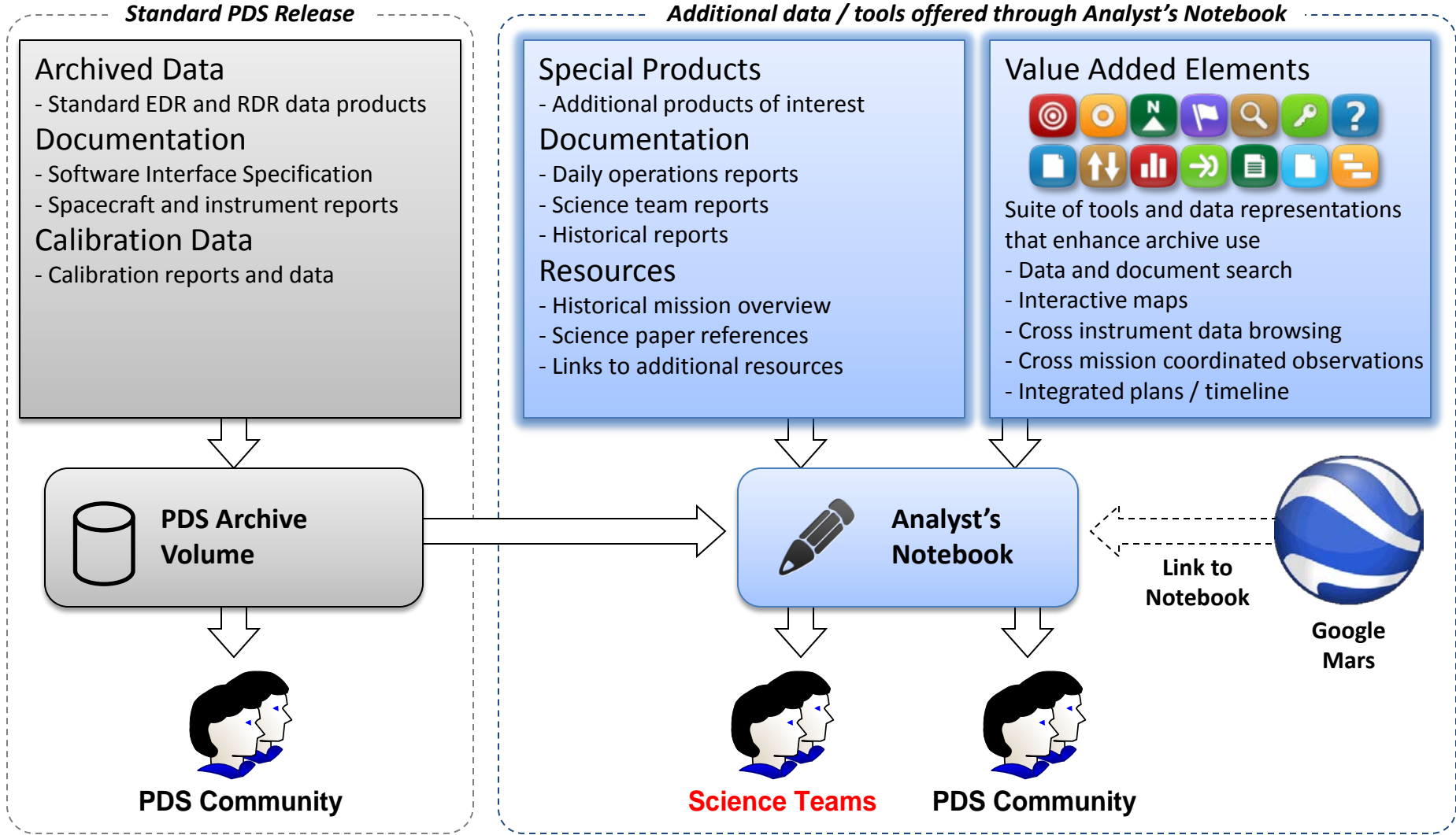
[To Parent Directory]
Wednesday, September 29, 2004 3:18 PM 2142208 lp128532760rad0200p285114cl.img
Wednesday, September 29, 2004 3:18 PM 50048 lp128532760rat0200p285114cl.img
Wednesday, September 29, 2004 3:18 PM 2142208 lp128532801rad0200p285115cl.img
Wednesday, September 29, 2004 3:18 PM 50048 lp128532801rat0200p285115cl.img
Wednesday, September 29, 2004 3:19 PM 2142208 lp128532843rad0200p285116cl.img
Wednesday, September 29, 2004 3:19 PM 50048 lp128532843rat0200p285116cl.img
Wednesday, September 29, 2004 3:19 PM 216320 lp128532898rad0200p285114cl.img
Wednesday, September 29, 2004 3:19 PM 50176 lp128532898rat0200p285114cl.img
Wednesday, September 29, 2004 3:19 PM 216320 lp128532950rad0200p285115cl.img
Wednesday, September 29, 2004 3:19 PM 50176 lp128532950rat0200p285115cl.img
Wednesday, September 29, 2004 3:19 PM 216320 lp128533003rad0200p285116cl.img
Wednesday, September 29, 2004 3:19 PM 50176 lp128533003rat0200p285116cl.img
Wednesday, September 29, 2004 3:19 PM 50148 lp128534453rad0203p260018cl.img
Wednesday, September 29, 2004 3:19 PM 41814 lp128534453rad0203p2600r8cl.img
Wednesday, September 29, 2004 3:19 PM 50432 lp128534453rat0203p260018cl.img
Wednesday, September 29, 2004 3:19 PM 50432 lp128534453rad0203p2600r8cl.img
Wednesday, September 29, 2004 3:20 PM 2142208 lp128534493rad0203p285018cl.img
Wednesday, September 29, 2004 3:20 PM 2142208 lp128534493rat0203p285018cl.img
Wednesday, September 29, 2004 3:20 PM 50432 lp128534493rad0203p285018cl.img
Wednesday, September 29, 2004 3:20 PM 50432 lp128534493rat0203p2850r8cl.img
Wednesday, September 29, 2004 3:21 PM 2142208 lp128534537rad0203p285018cl.img
Wednesday, September 29, 2004 3:21 PM 2142208 lp128534537rat0203p2850r8cl.img
Wednesday, September 29, 2004 3:21 PM 50176 lp128534537rad0203p285018cl.img
Wednesday, September 29, 2004 3:21 PM 50176 lp128534537rat0203p2850r8cl.img
Wednesday, September 29, 2004 3:21 PM 74752 lp128534568rad0203p261013cl.img
Wednesday, September 29, 2004 3:21 PM 50048 lp128534568rat0203p261013cl.img
Wednesday, September 29, 2004 3:21 PM 75520 lp128534606rad0203p261016cl.img
Wednesday, September 29, 2004 3:21 PM 74752 lp128534606rad0203p2610r6cl.img
    
```

Analyst's Notebook objective

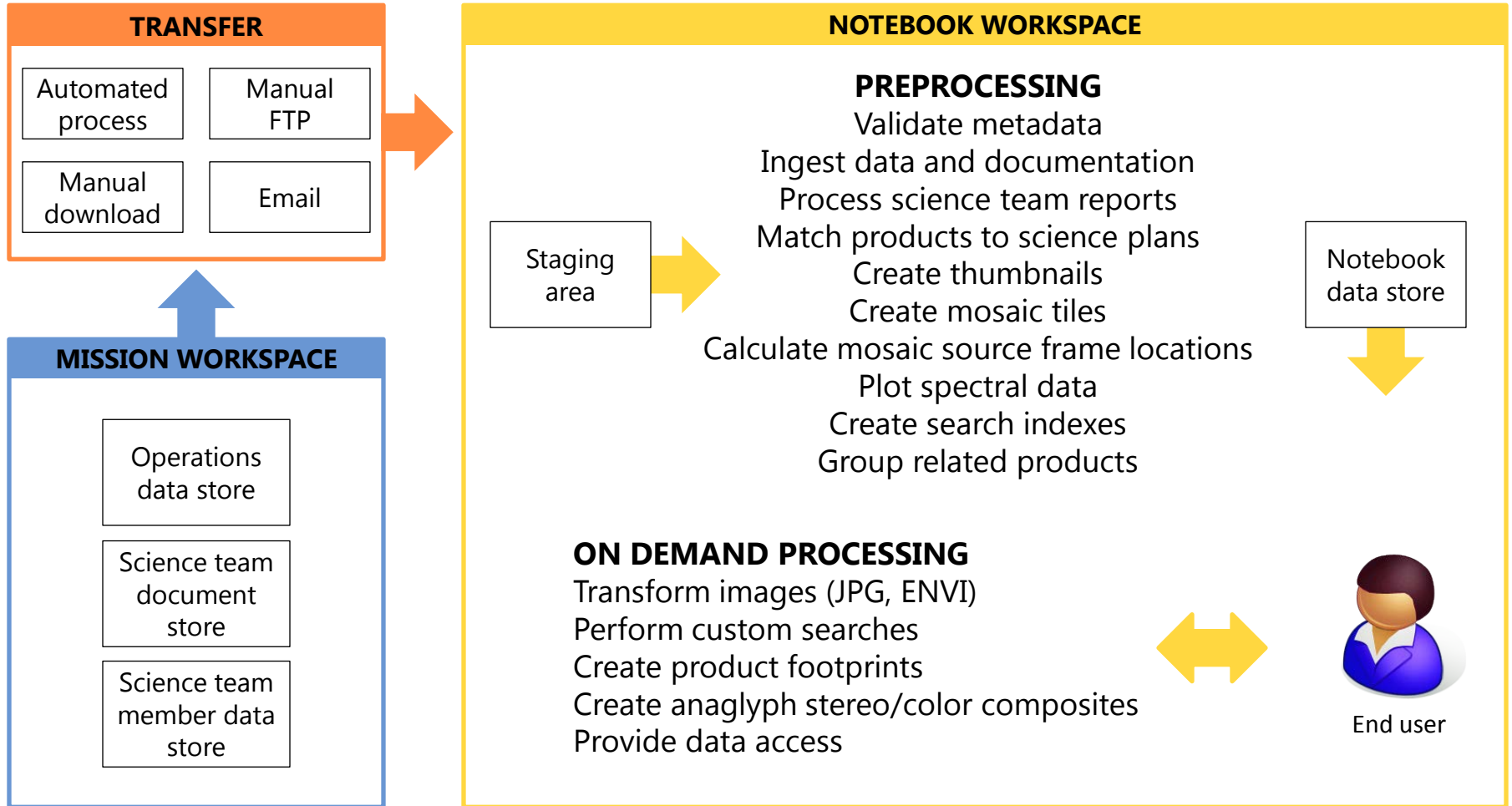
Provide access to the mission data archives by integrating sequence information, engineering and science data, and documentation into standard web-accessible pages.



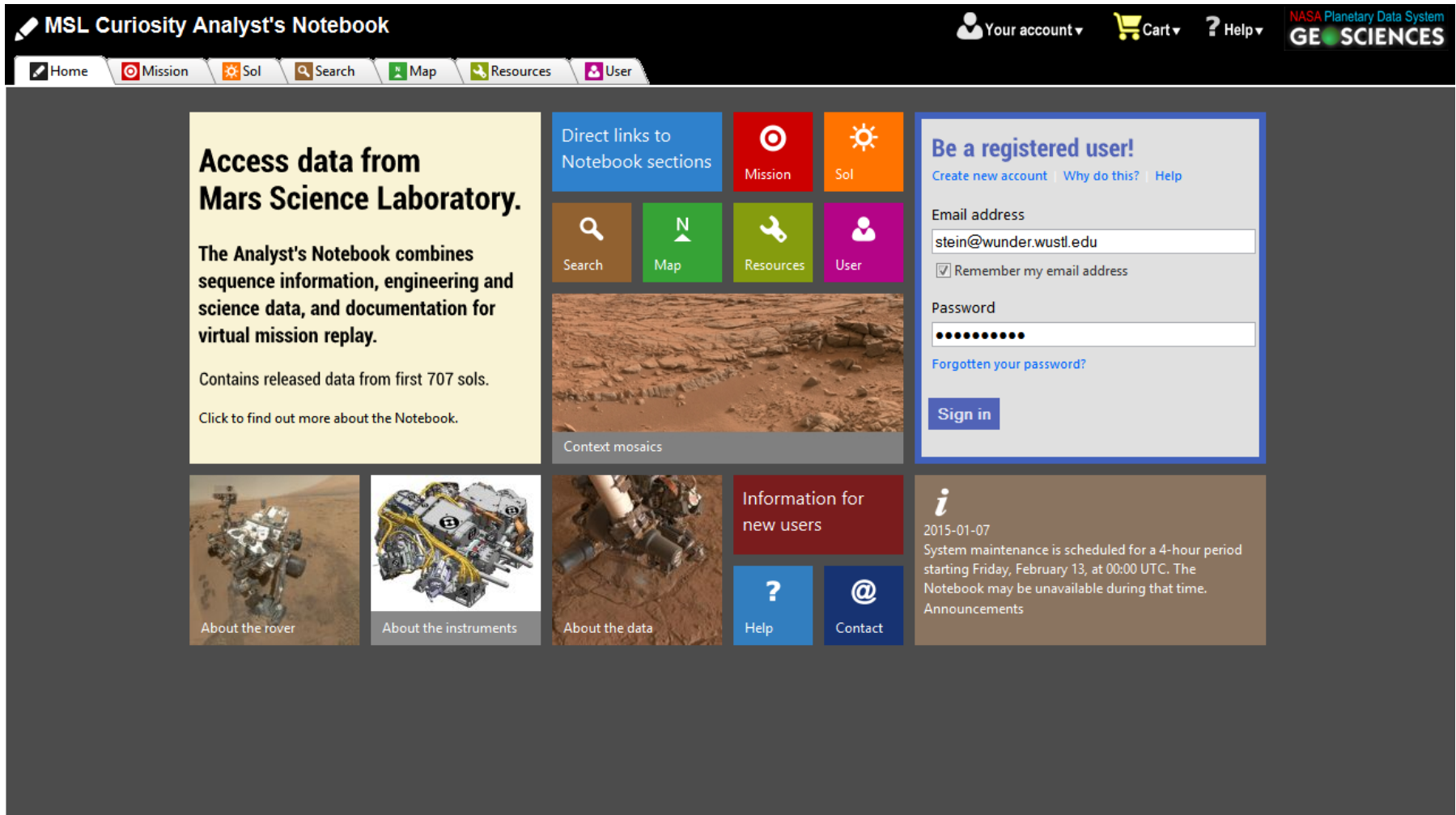
Notebook components



Populating the Notebook



Navigating the Notebook



MSL Curiosity Analyst's Notebook

[Home](#)
[Mission](#)
[Sol](#)
[Search](#)
[Map](#)
[Resources](#)
[User](#)

[Your account](#)
[Cart](#)
[Help](#)

NASA Planetary Data System
GE SCIENCES

Access data from Mars Science Laboratory.

The Analyst's Notebook combines sequence information, engineering and science data, and documentation for virtual mission replay.

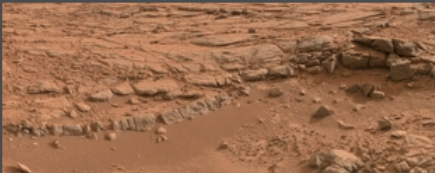
Contains released data from first 707 sols.

[Click to find out more about the Notebook.](#)

Direct links to Notebook sections

[Mission](#)
[Sol](#)

[Search](#)
[Map](#)
[Resources](#)
[User](#)



Context mosaics

Be a registered user!

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[Why do this?](#)
[Help](#)


Email address

Remember my email address


Password

[Forgotten your password?](#)


[Sign in](#)



About the rover



About the instruments



About the data

Information for new users

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i

2015-01-07

System maintenance is scheduled for a 4-hour period starting Friday, February 13, at 00:00 UTC. The Notebook may be unavailable during that time.

Announcements



Mission summaries

MSL Curiosity Analyst's Notebook

[Your account](#)
[Cart](#)

[Home](#)
[Mission](#)
[Sol](#)
[Search](#)
[Map](#)
[Resources](#)
[User](#)
[Help](#)

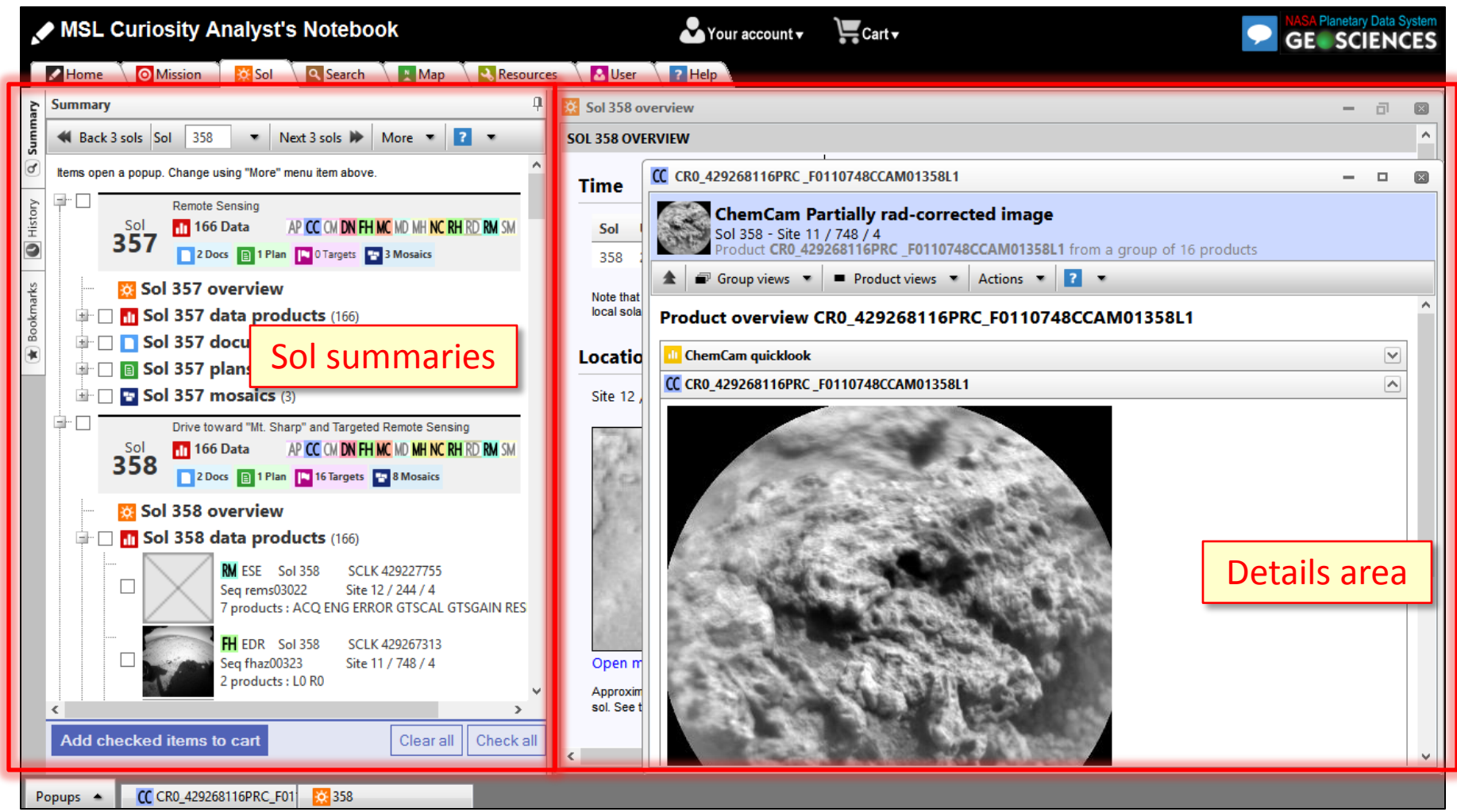
MSL Landed Operations Historical Overview

The mission is summarized with brief entries for each day's activity. Click on a sol to go to the Sol Summary for that sol.

[Download as PDF](#)
 [Download as Excel spreadsheet](#)
[Reload table](#)

Sol	Activity	Start site	L sub S	UTC at local noon
<input type="text"/>	<input type="text"/>	<input type="text"/>		
449	Anomalies Preclude Science Activities	22	047.59	2013-11-10 10:31
448	Anomalies Preclude Science Activities	22	047.13	2013-11-09 09:52
447	Anomalies Preclude Science Activities	22	046.68	2013-11-08 09:12
446	Flight Software Transition; Safing Event	22	046.22	2013-11-07 08:33
445	Flight Software Transition	22	045.76	2013-11-06 07:54
444	Flight Software Transition	22	045.31	2013-11-05 07:15
443	Targeted Remote Sensing	22	044.85	2013-11-04 06:35
442	In-Situ Observations of "Pine Plains" and "Rensselaer" Targets and Remote Sensing	22	044.39	2013-11-03 05:56
441	Targeted Remote Sensing; SAM Baseline Test	22	043.93	2013-11-02 05:17
440	Bump to "Cooperstown" Targets and Targeted Remote Sensing	21	043.47	2013-11-01 04:38
439	Drive toward "Cooperstown" Targets and Targeted Remote Sensing	21	043.01	2013-10-31 03:58
438	Drive toward "Cooperstown" Targets and Targeted Remote Sensing	21	042.55	2013-10-30 03:19
437	Drive toward "Cooperstown" and Remote Sensing	21	042.09	2013-10-29 02:40
436	Drive toward "Cooperstown" and Remote Sensing	21	041.63	2013-10-28 02:01

Sol summaries



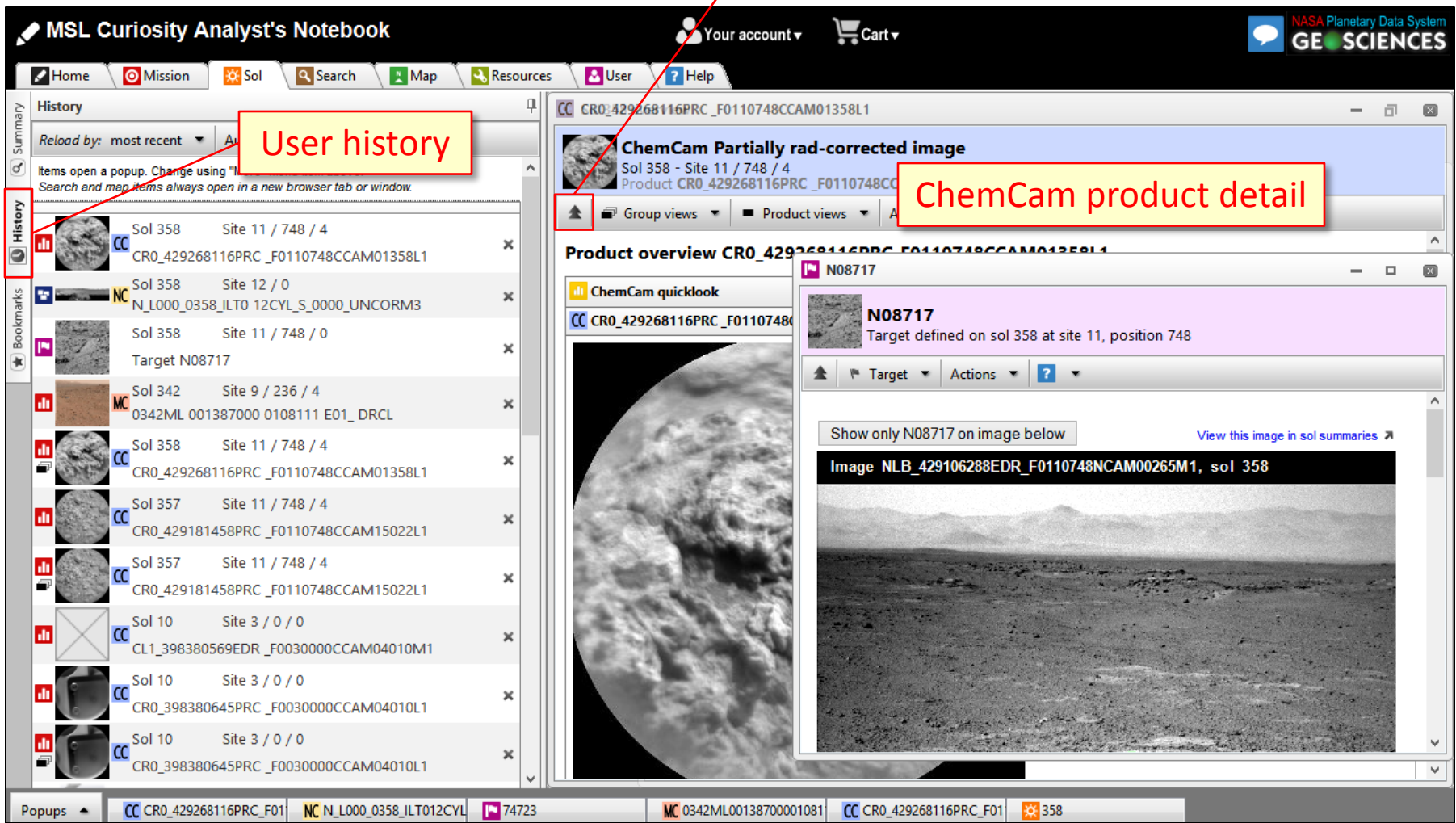
The screenshot displays the MSL Curiosity Analyst's Notebook interface. The top navigation bar includes 'Home', 'Mission', 'Sol', 'Search', 'Map', 'Resources', 'User', and 'Help'. The main content area is divided into two panes. The left pane, titled 'Summary', shows a list of sol summaries for Sol 357 and Sol 358. A red box highlights the 'Sol summaries' text within this pane. The right pane, titled 'Sol 358 overview', provides a detailed view of a specific product: 'ChemCam Partially rad-corrected image' from Sol 358, Site 11 / 748 / 4. A red box highlights the 'Details area' of this product view, which includes a large image of the Martian surface and associated metadata. The bottom of the interface features a 'Popups' bar with the current product ID and sol number.

User history

Click to hide detail title

User history

ChemCam product detail



The screenshot displays the MSL Curiosity Analyst's Notebook interface. The top navigation bar includes 'Home', 'Mission', 'Sol', 'Search', 'Map', 'Resources', 'User', and 'Help'. The 'History' panel on the left lists various products with columns for Sol number, Site, and Product ID. The 'ChemCam product detail' panel on the right shows a 'ChemCam Partially rad-corrected image' for Sol 358, Site 11 / 748 / 4, with a 'Product overview' and a 'ChemCam quicklook' image. A 'Target' panel for N08717 is also visible, showing a target defined on sol 358 at site 11, position 748. A 'Show only N08717 on image below' button is present, along with a 'View this image in sol summaries' link. The bottom status bar shows active popups for various products and the current Sol number (358).



ChemCam quicklook

MSL Curiosity Analyst's Notebook
Your account ▾
Cart ▾
NASA Planetary Data System
GE SCIENCES

Home
Mission
Sol
Search
Map
Resources
User
Help

History

Reload by: most recent ▾ Auto refresh on More ▾

Items open a popup. Change using "More" menu item above.
Search and map items always open in a new browser tab or window.

	Sol 358	Site 11 / 748 / 4	CR0_429268116PRC_F0110748CCAM01358L1	✕
	Sol 358	Site 12 / 0	N_L000_0358_ILT0 12CYL_S_0000_UNCORM3	✕
	Sol 358	Site 11 / 748 / 0	Target N08717	✕
	Sol 342	Site 9 / 236 / 4	0342ML 001387000 0108111 E01_DRCL	✕
	Sol 358	Site 11 / 748 / 4	CR0_429268116PRC_F0110748CCAM01358L1	✕
	Sol 357	Site 11 / 748 / 4	CR0_429181458PRC_F0110748CCAM15022L1	✕
	Sol 10	Site 3 / 0 / 0	CL1_398380569EDR_F0030000CCAM04010M1	✕
	Sol 10	Site 3 / 0 / 0	CR0_398380645PRC_F0030000CCAM04010L1	✕
	Sol 10	Site 3 / 0 / 0	CR0_398380645PRC_F0030000CCAM04010L1	✕
	ccam_ref.cat			✕

CC CR0_429268116PRC_F0110748CCAM01358L1

Group views ▾ Product views ▾ Actions ▾ ? ▾

Product overview CR0_429268116PRC_F0110748CCAM01358L1

ChemCam quicklook

ChemCam quicklook

Scale (image width, cm): 7.2
= scaled to US letter size for

ChemCam RMI Quicklook		<input checked="" type="checkbox"/> Linearity correction
Generated: Thu Oct 31 00:49:35 2013		<input checked="" type="checkbox"/> Dark subtraction
QChemCam_00358_RMI_429268116		<input checked="" type="checkbox"/> Smearing correction
From: CR0_429268116PRC_F0110748CCAM01358L1.MXD		<input checked="" type="checkbox"/> Ghost removal
Target: Ring River	Distance, m: 9.561	<input checked="" type="checkbox"/> Flat field correction
Sol: 358	Tel. temp. °C: -32.4	<input checked="" type="checkbox"/> Bad pixels process
LTST: 10:16:39	Exposure, ms: 26	

Popups ▾
CC CR0_429268116PRC_F01
449

Product views

MSL Curiosity Analyst's Notebook
Your account ▼ | Cart ▼
NASA Planetary Data System
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Home Mission Sol Search Map Resources User Help

History

Reload by: most recent | Auto refresh on | More

Items open a popup. Change using "More" menu item above.
Search and map items always open in a new browser tab or window.

		Sol 358	Site 11 / 748 / 4	✕
		Sol 358	Site 12 / 0	✕
		Sol 358	Site 11 / 748 / 0	✕
		Sol 342	Site 9 / 236 / 4	✕
		Sol 358	Site 11 / 748 / 4	✕
		Sol 357	Site 11 / 748 / 4	✕
		Sol 357	Site 11 / 748 / 4	✕
		Sol 10	Site 3 / 0 / 0	✕
		Sol 10	Site 3 / 0 / 0	✕
		Sol 10	Site 3 / 0 / 0	✕

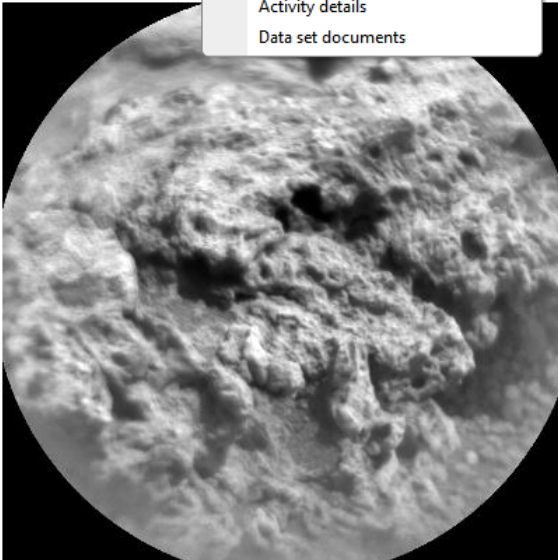
CR0_429268116PRC_F0110748CCAM01358L1

Group views Product views Actions ?

Product overview C AM01358L1

ChemCam quicklook

CR0_429268116PRC_F



This browse image is not the actual data product.

- Overview
- Full-resolution image
- PDS label
- Derived products and download
- Activity details
- Data set documents

Popups
 CR0_429268116PRC_F01
 N_L000_0358_ILT012CYL
 74723
 0342ML0013870001081
 CR0_429268116PRC_F01
 358

Actions

MSL Curiosity Analyst's Notebook

Your account | Cart

NASA Planetary Data System
GE SCIENCES

Home | Mission | Sol | Search | Map | Resources | User | Help

History

Reload by: most recent | Auto refresh on | More

Items open a popup. Change using "More" menu item above.
Search and map items always open in a new browser tab or window.

Thumbnail	Product ID	Sol	Site	Actions
	CC CR0_429268116PRC_F0110748CCAM01358L1	Sol 358	Site 11 / 748 / 4	✕
	NC N_L000_0358_ILT012CYL_S_0000_UNCORM3	Sol 358	Site 12 / 0	✕
	Target N08717	Sol 358	Site 11 / 748 / 0	✕
	MC 0342ML 001387000 0108111 E01_DRCL	Sol 342	Site 9 / 236 / 4	✕
	CC CR0_429268116PRC_F0110748CCAM01358L1	Sol 358	Site 11 / 748 / 4	✕
	CC CR0_429181458PRC_F0110748CCAM15022L1	Sol 357	Site 11 / 748 / 4	✕
	CC CR0_429181458PRC_F0110748CCAM15022L1	Sol 357	Site 11 / 748 / 4	✕
	CC CL1_398380569EDR_F0030000CCAM04010M1	Sol 10	Site 3 / 0 / 0	✕
	CC CR0_398380645PRC_F0030000CCAM04010L1	Sol 10	Site 3 / 0 / 0	✕
	CC CR0_398380645PRC_F0030000CCAM04010L1	Sol 10	Site 3 / 0 / 0	✕

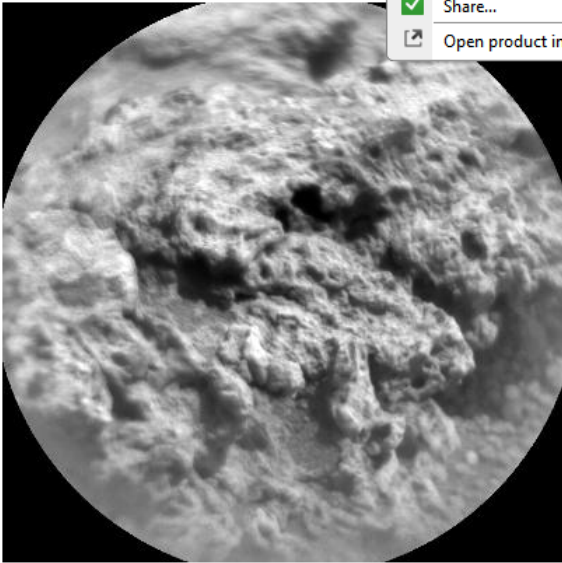
CR0_429268116PRC_F0110748CCAM01358L1

Group views | Product views | Actions | ?

Product overview CR0_429268116PRC

ChemCam quicklook

CC CR0_429268116PRC_F0110748CCAM01358L1



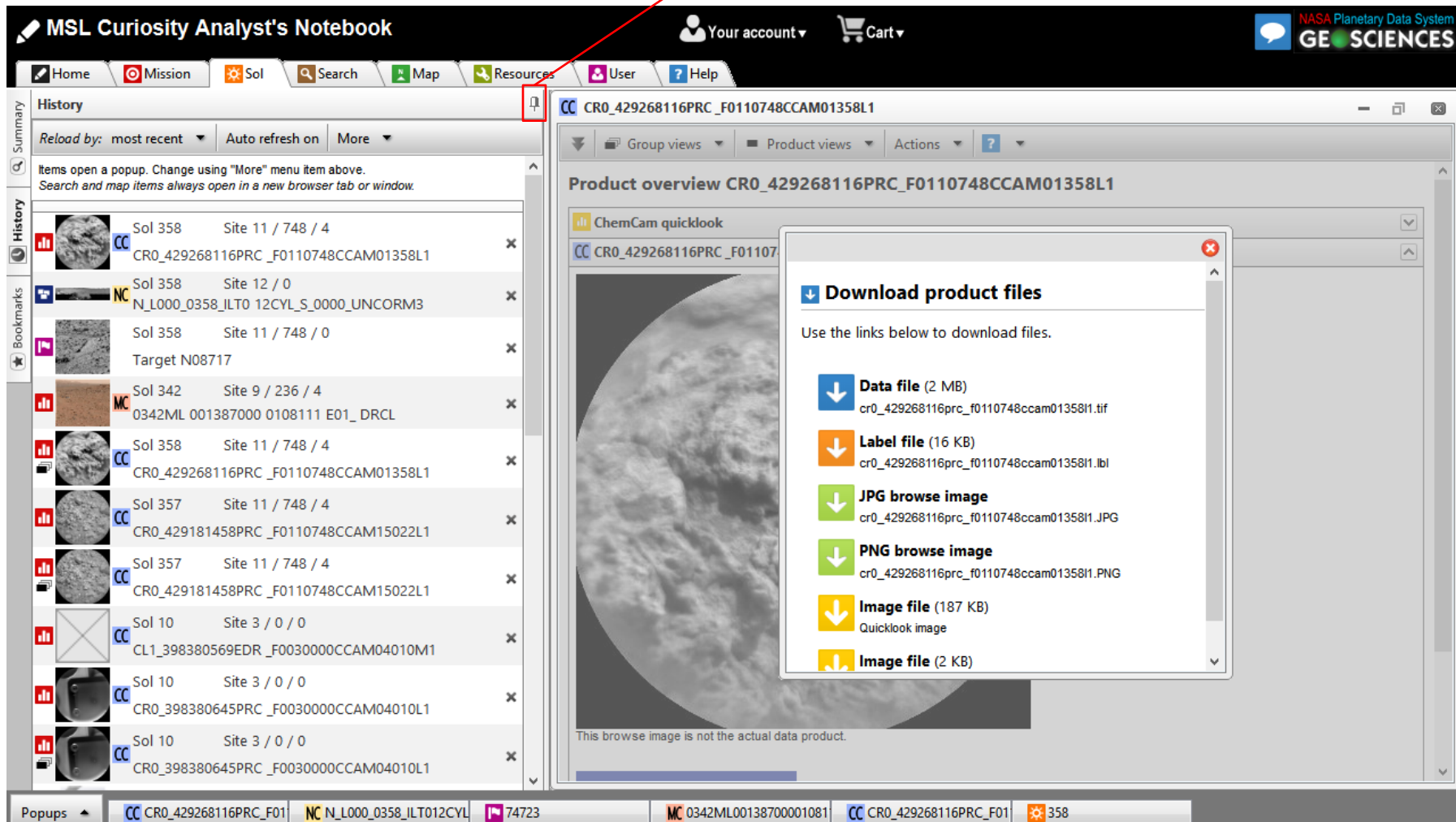
This browse image is not the actual data product.

- Bookmark...
- Cart...
- Download...
- Search...
- Share...
- Open product in new window

Popups | CC CR0_429268116PRC_F01 | NC N_L000_0358_ILT012CYL | 74723 | MC 0342ML0013870001081 | CC CR0_429268116PRC_F01 | 358

Download files

Click to hide summaries



MSL Curiosity Analyst's Notebook

Home Mission Sol Search Map Resources User Help

Your account Cart

NASA Planetary Data System
GE SCIENCES

History

Reload by: most recent | Auto refresh on | More

Items open a popup. Change using "More" menu item above.
Search and map items always open in a new browser tab or window.

Thumbnail	Product ID	Sol	Site	Summary	Actions
	CC CR0_429268116PRC_F0110748CCAM01358L1	Sol 358	Site 11 / 748 / 4		✕
	NC N_L000_0358_ILT012CYL_S_0000_UNCORM3	Sol 358	Site 12 / 0		✕
	Target N08717	Sol 358	Site 11 / 748 / 0		✕
	MC 0342ML 001387000 0108111 E01_DRCL	Sol 342	Site 9 / 236 / 4		✕
	CC CR0_429268116PRC_F0110748CCAM01358L1	Sol 358	Site 11 / 748 / 4		✕
	CC CR0_429181458PRC_F0110748CCAM15022L1	Sol 357	Site 11 / 748 / 4		✕
	CC CR0_429181458PRC_F0110748CCAM15022L1	Sol 357	Site 11 / 748 / 4		✕
	CC CL1_398380569EDR_F0030000CCAM04010M1	Sol 10	Site 3 / 0 / 0		✕
	CC CR0_398380645PRC_F0030000CCAM04010L1	Sol 10	Site 3 / 0 / 0		✕
	CC CR0_398380645PRC_F0030000CCAM04010L1	Sol 10	Site 3 / 0 / 0		✕

Product overview CR0_429268116PRC_F0110748CCAM01358L1

ChemCam quicklook

CR0_429268116PRC_F0110748CCAM01358L1

Download product files

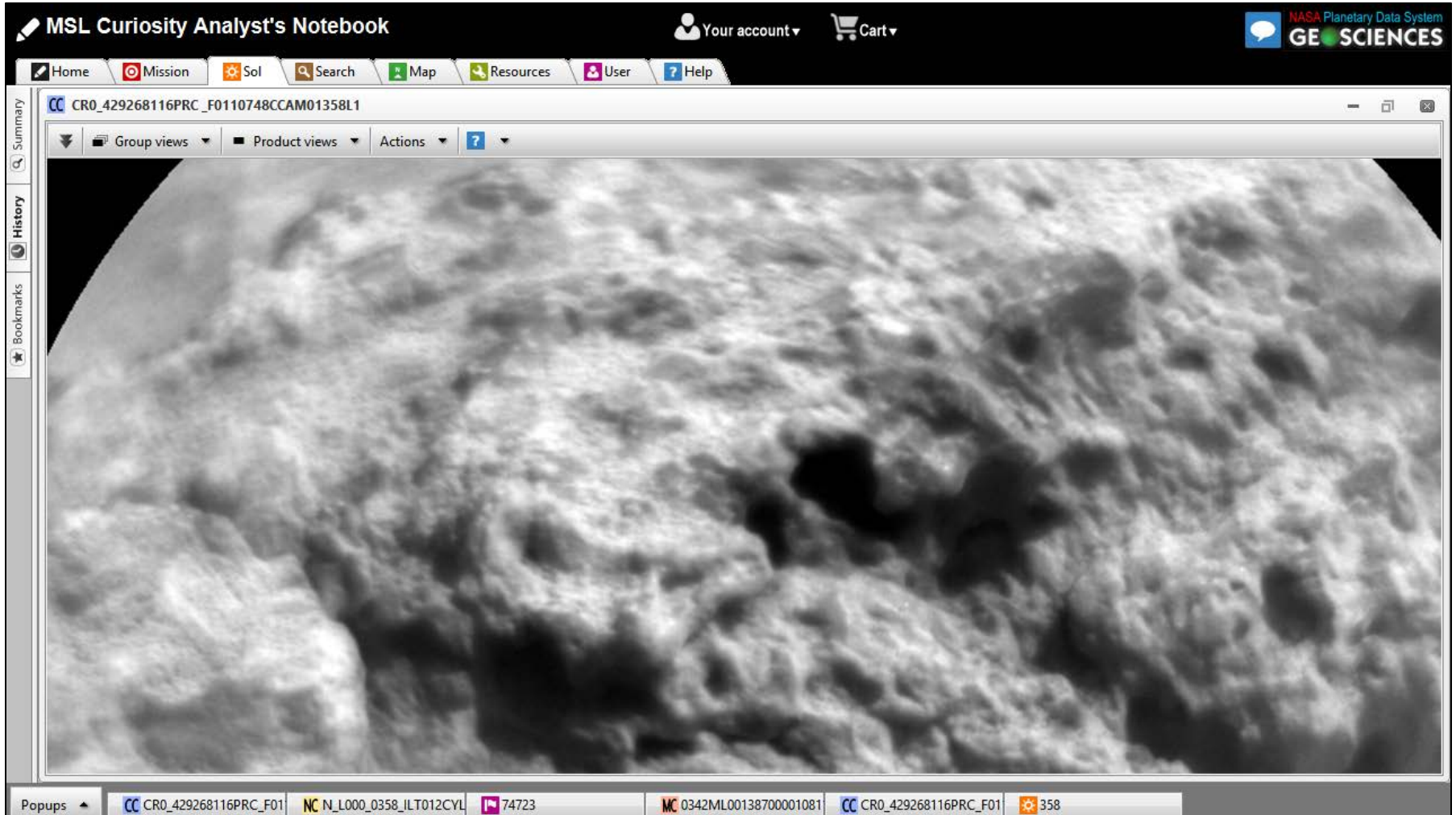
Use the links below to download files.

- Data file** (2 MB)
cr0_429268116prc_f0110748ccam01358l1.tif
- Label file** (16 KB)
cr0_429268116prc_f0110748ccam01358l1.lbl
- JPG browse image**
cr0_429268116prc_f0110748ccam01358l1.JPG
- PNG browse image**
cr0_429268116prc_f0110748ccam01358l1.PNG
- Image file** (187 KB)
Quicklook image
- Image file** (2 KB)

This browse image is not the actual data product.

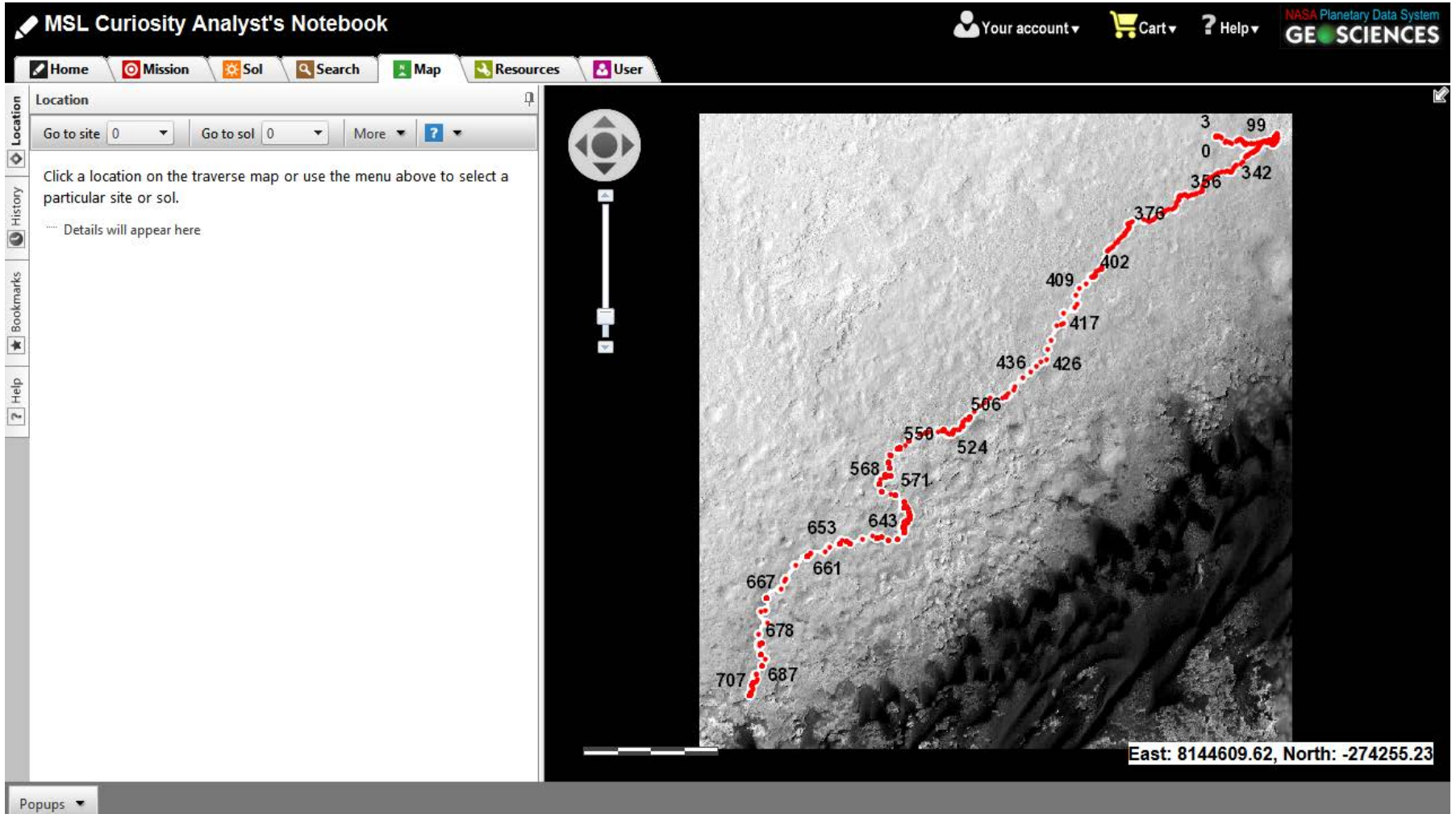
Popups: CC CR0_429268116PRC_F01 | NC N_L000_0358_ILT012CYL | 74723 | MC 0342ML0013870001081 | CC CR0_429268116PRC_F01 | 358

Full-resolution images



The screenshot displays the MSL Curiosity Analyst's Notebook interface. At the top, the title bar reads "MSL Curiosity Analyst's Notebook" and includes navigation links for Home, Mission, Sol, Search, Map, Resources, User, and Help. The main content area shows a large, high-resolution grayscale image of a Martian rock surface, identified by the URL "CR0_429268116PRC_F0110748CCAM01358L1". The interface also features a sidebar with Summary, History, and Bookmarks, and a bottom status bar with various data fields and popups.

Traverse map



MSL Curiosity Analyst's Notebook

Home Mission Sol Search Map Resources User

Your account Cart Help NASA Planetary Data System GE SCIENCES

Location

Go to site 0 Go to sol 0 More ?

Click a location on the traverse map or use the menu above to select a particular site or sol.

Details will appear here

History Bookmarks Help

Popups

East: 8144609.62, North: -274255.23

The traverse map shows a sequence of numbered points (3, 99, 0, 342, 386, 376, 402, 409, 417, 436, 426, 506, 550, 524, 568, 571, 653, 643, 667, 661, 678, 707, 687) connected by a red dotted line, indicating the rover's path across the terrain. A navigation sidebar on the left includes buttons for Location, History, Bookmarks, and Help. The interface also features a search bar, a map view selector, and a user account menu.

Find data by location

MSL Curiosity Analyst's Notebook
Your account ▾
Cart ▾
Help ▾
NASA Planetary Data System
GE SCIENCES

Home
Mission
Sol
Search
Map
Resources
User

Location

Go to site 0 ▾ Go to sol 0 ▾ More ▾ ? ▾

Site 35 / 0 / 0

Items open a popup. Change using "More" menu item above.

Drive toward Mt. Sharp and Remote Sensing

Sol 657 **94 Data Products**
AP CC CM DN FH MC MD MH NC RH RD RM SM SP

2 Documents 0 Plans 0 Targets 6 Mosaics

Drive toward Mt. Sharp and Targeted Remote Sensing

Sol 658 **61 Data Products**
AP CC CM DN FH MC MD MH NC RH RD RM SM SP

2 Documents 1 Plan 6 Targets 4 Mosaics

Sol 658 overview

Sol 658 data products (64)

ChemCam (33)

EDR Sol 658 SCLK 455900115
 Seq ccam00658 Site 35 / 0 / 0
 7 products : CC0

PRC Sol 658 SCLK 455900725
 Seq ccam01658 Site 35 / 0 / 0
 12 products : CR0 CL59

PRC Sol 658 SCLK 455901824
 Seq ccam02658 Site 35 / 0 / 0
 13 products : CR0 CL59

2 locations found

Click on a location below to load details.

Site 34 / 1616 / 4 Sol 657

1 Data AP CC CM DN FH MC MD MH NC RH RD RM SM

2 Doc 0 Plan 0 Targ 0 Mos 0 Spec

Site 35 / 0 / 0 Sols 657-658

163 Data AP CC CM DN FH MC MD MH NC RH RD RM SM

4 Doc 1 Plan 8 Targ 5 Mos 0 Spec

East: 8141934.14, North: -274957.97



Search for data, documents, targets

MSL Curiosity Analyst's Notebook Your account Cart NASA Planetary Data System **GE SCIENCES**

Home Mission Sol Search Map Resources User Help

Data product search

Time

Sol:

SCLK:

UTC date:

L sub s:

LTST:

Location

Site:

Drive:

Pose:

Instrument

All AP APXS MD MARDI RH Rear Hazcam
 CC ChemCam MC Mastcam RM REMS
 CM CheMin MH MAHLI SM SAM
 DN DAN NC Navcam SP SA/SPaH
 FH Front Hazcam RD RAD

Command

Sort order: Sol, Instrument Show in results: Products only

Popups

Search results

MSL Curiosity Analyst's Notebook

[Your account](#) [Cart](#)

Home Mission Sol Search Map Resources User Help

Results

Return to search More ▾

Showing results for Products, Sols 350-358, Instrument ChemCam (471 data products found.)

Items open a popup. Change using "More" menu item above.

Sol 350 Sol 350 (76 products)

Sol 352 Sol 352 (124 products)

<input type="checkbox"/>		CC EPW Sol 352	SCLK 428734620	
		Seq ccam00352	Site 11 / 302 / 4	
		7 products : CC0		
<input type="checkbox"/>		CC EDR Sol 352	SCLK 428735266	
		Seq ccam01352	Site 11 / 302 / 4	
		34 products : CL9		
<input type="checkbox"/>		CC PRC Sol 352	SCLK 428737249	
		Seq ccam15022	Site 11 / 302 / 4	
		5 products : CR0 CL59		
<input type="checkbox"/>		CC PRC Sol 352	SCLK 428738410	
		Seq ccam02352	Site 11 / 302 / 4	
		21 products : CR0 CL159		
<input type="checkbox"/>		CC PRC Sol 352	SCLK 428739143	
		Seq ccam03352	Site 11 / 302 / 4	

Add checked items to cart
Clear all Check all

CR0_428737249PRC_F0110302CCAM15022L1

ChemCam

Sol 352 - Site 11 / 302 / 4

Group of 5 products from sequence ccam15022

Group views ▾
Product views ▾
Actions ▾
? ▾

CR0_428737249PRC_F0110302CCAM15022L1

This group comprises the products below.

Click on product for details (will appear here). Click on to open product in popup or new window.

indicates product(s) with quicklook image

ChemCam Partially rad-corrected image

CR0_428737249PRC_F0110302CCAM15022L1

ChemCam First order product

CL9_428737408EDR_F0110302CCAM15022M1

ChemCam Initial LIBS Spectrum

CL5_428737433RDR_F0110302CCAM15022P3

ChemCam First order product

CL9_428737468EDR_F0110302CCAM15022M1

ChemCam Partially rad-corrected image

CR0_428737491PRC_F0110302CCAM15022L1

Quick share
▾

Popups CR0_428737249PRC_F01

18 Mar 2015

ChemCam Community Workshop

20

Context mosaics

MSL Curiosity Analyst's Notebook Your account ▾ Cart ▾ Help ▾ NASA Planetary Data System GE SCIENCES

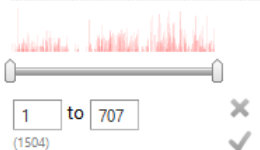
Home Mission Sol Search Map Resources User

Back

Instrument

- MH** MAHLI (40)
- MC** Mastcam left (833)
- MC** Mastcam right (401)
- NC** Navcam left (240)

Sol


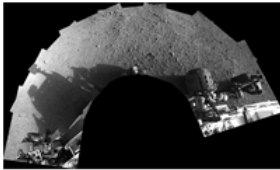
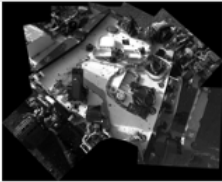
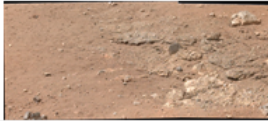



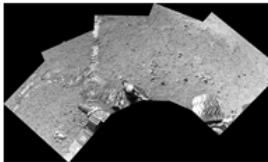



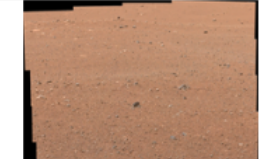


Source images

- up to 5 (789)
- 6 to 10 (310)
- 11 to 20 (182)
- 21 to 50 (140)
- 51 to 100 (56)
- 101+ (37)

Context mosaics ⊕

(1504 mosaics)

			
Sol 2 7348 x 1356 NC Left 10 source images Preview Mosaic view	Sol 2 4241 x 2538 NC Left 12 source images Preview Mosaic view	Sol 2 2813 x 2282 NC Left 13 source images Preview Mosaic view	Sol 13 981 x 421 MC Left 2 source images Preview Mosaic view
			
Sol 13 549 x 709 MC Left 2 source images Preview Mosaic view	Sol 13 2558 x 1199 MC Right 2 source images Preview Mosaic view	Sol 14 1627 x 2156 NC Left 3 source images Preview Mosaic view	Sol 16 3429 x 1956 NC Left 5 source images Preview Mosaic view
			

Context mosaics

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Back

Instrument

- MH MAHLI (1)
- MC Mastcam left (39)
- MC Mastcam right (29)
- NC Navcam left (0)

Sol



150 to 707 (28) ✕

Source images

- up to 5 (98)
- 6 to 10 (58)
- 11 to 20 (53)
- 21 to 50 (54)
- 51 to 100 (16)
- 101+ (13)

Context mosaics +

Mastcam right ✕ Sols 150 to 707 ✕ 51 to 100 source images ✕ 101+ source images ✕ (28 mosaics) [Reset all filters](#)

CX00184MR0060000 F413809668VA


Sol 184 **Open** **Download**

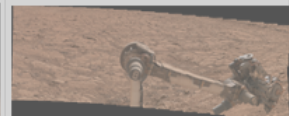
MC Mastcam right [Mosaic view](#) [Mosaic \(112 MB\)](#)

21632 x 8764

140 source images

Click on image to open Mosaic view in new window






Sol 184 21632 x 8764

MC Right 140 source images

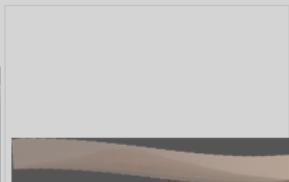
[Preview](#) [Mosaic view](#)



Sol 186 21769 x 7724

MC Right 140 source images

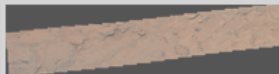
[Preview](#) [Mosaic view](#)



Sol 271 30451 x 5200

MC Right 60 source images

[Preview](#) [Mosaic view](#)



Sol 308 21148 x 5548

MC Right 60 source images

[Preview](#) [Mosaic view](#)

Context mosaics

Mastcam mosaic (right)
Reload inside Sol browser

▲ 📁 Group views ▾ ■ Product views ▾ ⚙️ Actions ▾ ? ▾



















Mosaic Information

MOSAIC


Horizontal cylindrical projection
21632 samples x 8764 lines
140 source images

SOURCE IMAGES


Click on a source image to open it in a new window.

	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809668 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809713 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809759 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809805 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809851 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809897 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809943 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413809989 Site 6 / 0 / 2 DRCL	
	MC E Sol 184 Seq aut_04096 1402 x 1196	SCLK 413810035 Site 6 / 0 / 2	


📌 Show Footprints Source IDs



Data set documents


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Your account ▾
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Home
 Mission
 Sol
 Search
 Map
 Resources
 User
 Help

Mission and instrument data set documents

Access archive documents for the mission and individual instruments.

- Mission specific**
- APXS**
- ChemCam**
- CheMin**
- DAN**
- Front Hazcam**
- MAHLI**
- MARDI**
- Mastcam**
- Navcam**
- RAD**
- Rear Hazcam**
- REMS**
- SAM**
- SA/SPaH**

CC ChemCam data set documents

These documents are designed to promote understanding of the mission, spacecraft, instruments, and data formats. For documentation detailing day-to-day mission operations refer to the Sol Summaries.

The data set documents below are collected from the archive volumes for this instrument. (The particular archive volume is shown following the file name.) Thus, there may be multiple documents with the same file name.

The Software Interface Specification (SIS) documents contain technical, detailed descriptions of the instrument and the data product format. Consider reading this document when working with the data. It is listed under the "Documents" group below.

Archive documentation

	AAREADME.TXT	from RDR volume MSLCCM_1XXX	View	Download
7 KB	Description of the format of the ChemCam Archive volumes			
	AAREADME.TXT	from EDR volume MSLCCM_0XXX	View	Download
10 KB	Description of the format of the ChemCam Archive volumes			
	ERRATA.TXT	from RDR volume MSLCCM_1XXX	View	Download
6 KB	Release notes and errata for the MSL CCAM RDR data set			
	ERRATA.TXT	from EDR volume MSLCCM_0XXX	View	Download
4 KB	Release notes and errata concerning the MSL ChemCam EDR archive			
	VOLDESC.CAT	from RDR volume MSLCCM_1XXX	View	Download
2 KB	Detailed documentation about the mission, instrument, and data set, as well as an index table			
	VOLDESC.CAT	from EDR volume MSLCCM_0XXX	View	Download
2 KB	Detailed documentation about the mission, instrument, and data set, as well as an index table			

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