OGMCOAL DNR <ogmcoal@utah.gov>

Fwd: 0250005 Coal Hollow Mine storm event Met. Data

1 message

Priscilla Burton <priscillaburton@utah.gov> Mon, Oct 20, 2014 at 4:52 PM
To: OGMCOAL DNR <ogmcoal@utah.gov>, Steve Christensen <stevechristensen@utah.gov>, Keenan Storrar <kstorrar@utah.gov>

See Inspection Report 3979 for further details of storm related erosion at the Coal Hollow mine site.

-------- Forwarded message --------
From: **Kirk Nicholes** <knicholes@altoncoal.com>
Date: Mon, Oct 20, 2014 at 4:32 PM
Subject: Met. Data
To: "Daron Haddock (daronhaddock@utah.gov)" <daronhaddock@utah.gov>, "Priscilla Burton (priscillaburton@utah.gov)" <priscillaburton@utah.gov>, "Karl Houskeeper (karlhouskeeper@utah.gov)" <karlhouskeeper@utah.gov>

All,

Attached is my data file precipitation, etc. As you can see it is for the entire time the Met. Station has been set up. It includes the raw data as well as data that has been converted to a format that we can more easily read. On the Tab 2014 I have highlighted the storm in 9/8-9/9 that done most of the damage. The hourly totals are in Column M Row 6017 - 6038 (total of 2.61 inches). Column O & P are the Daily Totals, Row 252 & 253 once again show the same storm totals. Also the sheet sum information on a Monthly basis, this is shown in Column Q & R. Off the top of my head the 100/24 event for this area is 3.1 inches of precip. And the 10/6 is 1.0 inches. The other attachment is a precipitation frequency chart for the area that April gave me that gives a little more information.

Thank You

Kirk Nicholes

Environmental Specialist

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2 attachments

All Weather 100112.xlsx

12867K

Alton Precipitation Frequency Estimates.pdf
353K

NOAA Atlas 14, Volume 1, Version 5ALTON
Station ID: 42-0086
Location name: Alton, Utah, US*
Coordinates: 37.4333, -112.4833
Elevation:
Elevation (station metadata): 7040ft*
* source: Google Maps

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.000 (0.000-0.000)	0.000 (0.000-0.000)	0.000 (0.000-0.000)	0.000 (0.000-0.000)	0.000 (0.000-1.00)	1.00 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-2.00)
10-min	0.000 (0.000-0.000)	0.000 (0.000-0.000)	0.000 (0.000-0.000)	1.00 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	2.00 (1.00-2.00)	2.00 (1.00-2.00)
15-min	0.000 (0.000-0.000)	0.000 (0.000-0.000)	0.000 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	2.00 (1.00-2.00)	2.00 (1.00-2.00)	2.00 (2.00-3.00)
30-min	0.000 (0.000-0.000)	0.000 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-2.00)	2.00 (1.00-2.00)	2.00 (2.00-2.00)	3.00 (2.00-3.00)	3.00 (2.00-4.00)
60-min	0.000 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-2.00)	2.00 (1.00-2.00)	2.00 (2.00-2.00)	3.00 (2.00-3.00)	3.00 (2.00-4.00)	4.00 (3.00-5.00)
2-hr	1.00 (0.000-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-2.00)	2.00 (1.00-2.00)	2.00 (2.00-3.00)	3.00 (2.00-3.00)	3.00 (3.00-4.00)	4.00 (3.00-5.00)
3-hr	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	2.00 (1.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-3.00)	3.00 (2.00-3.00)	3.00 (3.00-4.00)	4.00 (3.00-5.00)
6-hr	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-1.00)	1.00 (1.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-3.00)	3.00 (2.00-3.00)	4.00 (3.00-4.00)	4.00 (3.00-5.00)
12-hr	1.00 (1.00-1.00)	1.00 (1.00-1.00)	2.00 (2.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-2.00)	3.00 (2.00-3.00)	3.00 (3.00-3.00)	3.00 (3.00-4.00)	4.00 (3.00-4.00)	4.00 (4.00-5.00)
24-hr	1.00 (1.00-1.00)	2.00 (2.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-3.00)	3.00 (3.00-3.00)	3.00 (3.00-3.00)	4.00 (3.00-4.00)	4.00 (4.00-4.00)	5.00 (4.00-5.00)	5.00 (4.00-6.00)
2-day	2.00 (1.00-2.00)	2.00 (2.00-2.00)	2.00 (2.00-3.00)	3.00 (3.00-3.00)	3.00 (3.00-4.00)	4.00 (3.00-4.00)	4.00 (4.00-5.00)	5.00 (4.00-5.00)	5.00 (5.00-6.00)	6.00 (5.00-7.00)
3-day	2.00 (2.00-2.00)	2.00 (2.00-2.00)	3.00 (2.00-3.00)	3.00 (3.00-3.00)	4.00 (3.00-4.00)	4.00 (4.00-5.00)	5.00 (4.00-5.00)	5.00 (5.00-6.00)	6.00 (5.00-7.00)	7.00 (6.00-7.00)
4-day	2.00 (2.00-2.00)	2.00 (2.00-3.00)	3.00 (3.00-3.00)	3.00 (3.00-4.00)	4.00 (4.00-4.00)	5.00 (4.00-5.00)	5.00 (5.00-6.00)	6.00 (5.00-6.00)	7.00 (6.00-7.00)	7.00 (6.00-8.00)
7-day	2.00 (2.00-2.00)	3.00 (3.00-3.00)	4.00 (3.00-4.00)	4.00 (4.00-4.00)	5.00 (4.00-5.00)	6.00 (5.00-6.00)	6.00 (6.00-7.00)	7.00 (6.00-8.00)	8.00 (7.00-9.00)	9.00 (7.00-10.0)
10-day	2.00 (2.00-3.00)	3.00 (3.00-3.00)	4.00 (4.00-4.00)	5.00 (4.00-5.00)	6.00 (5.00-6.00)	6.00 (6.00-7.00)	7.00 (7.00-8.00)	8.00 (7.00-9.00)	9.00 (8.00-11.0)	10.0 (9.00-12.0)
20-day	3.00 (3.00-4.00)	4.00 (4.00-4.00)	5.00 (5.00-6.00)	6.00 (5.00-6.00)	7.00 (6.00-8.00)	8.00 (7.00-9.00)	9.00 (8.00-10.0)	10.0 (9.00-11.0)	11.0 (10.0-12.0)	12.0 (10.0-13.0)
30-day	4.00 (4.00-4.00)	5.00 (5.00-5.00)	6.00 (6.00-7.00)	7.00 (7.00-8.00)	8.00 (8.00-9.00)	9.00 (8.00-10.0)	10.0 (9.00-11.0)	11.0 (10.0-12.0)	12.0 (11.0-14.0)	13.0 (12.0-15.0)
45-day	5.00 (4.00-5.00)	6.00 (5.00-7.00)	7.00 (7.00-8.00)	9.00 (8.00-10.0)	10.0 (9.00-11.0)	12.0 (10.0-13.0)	13.0 (11.0-14.0)	14.0 (13.0-16.0)	16.0 (14.0-18.0)	17.0 (15.0-20.0)
60-day	6.00 (5.00-6.00)	7.00 (6.00-8.00)	9.00 (8.00-10.0)	10.0 (9.00-11.0)	12.0 (11.0-14.0)	14.0 (12.0-15.0)	15.0 (14.0-17.0)	17.0 (15.0-19.0)	19.0 (17.0-21.0)	21.0 (18.0-24.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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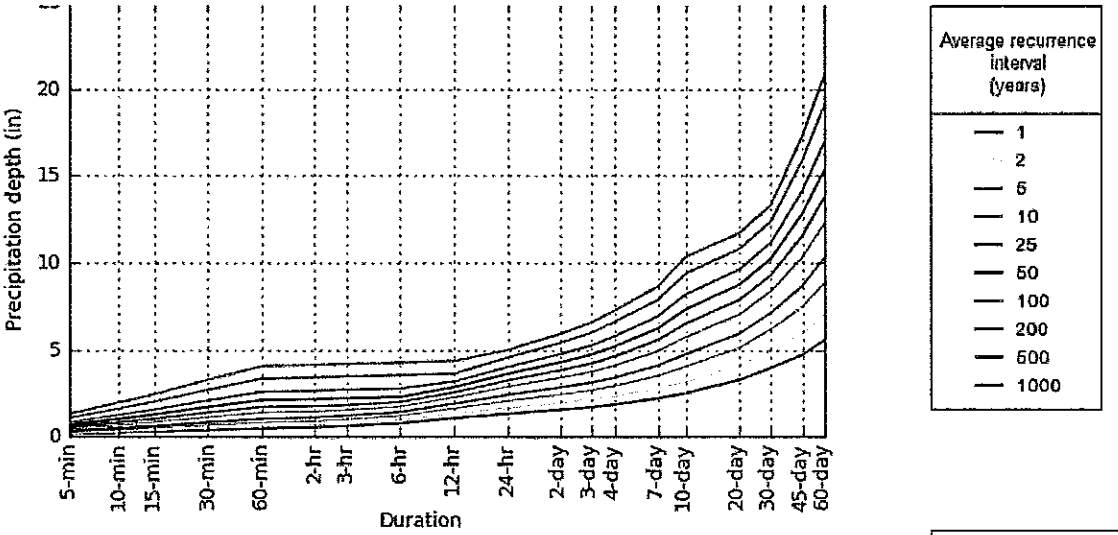
PF graphical


Precipitation depth (in)
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10
15
20
5-min
10-min
15-min
30-min
60-min
2-hr
3-hr
6-hr
12-hr
24-hr
2-day
3-day
4-day
7-day
10-day
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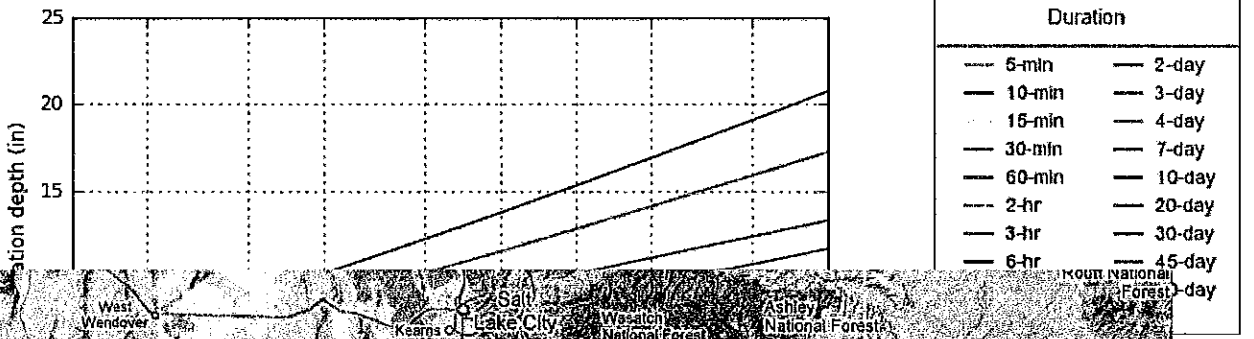
25
50
100
200
500
1000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20
15
Duration
5-min
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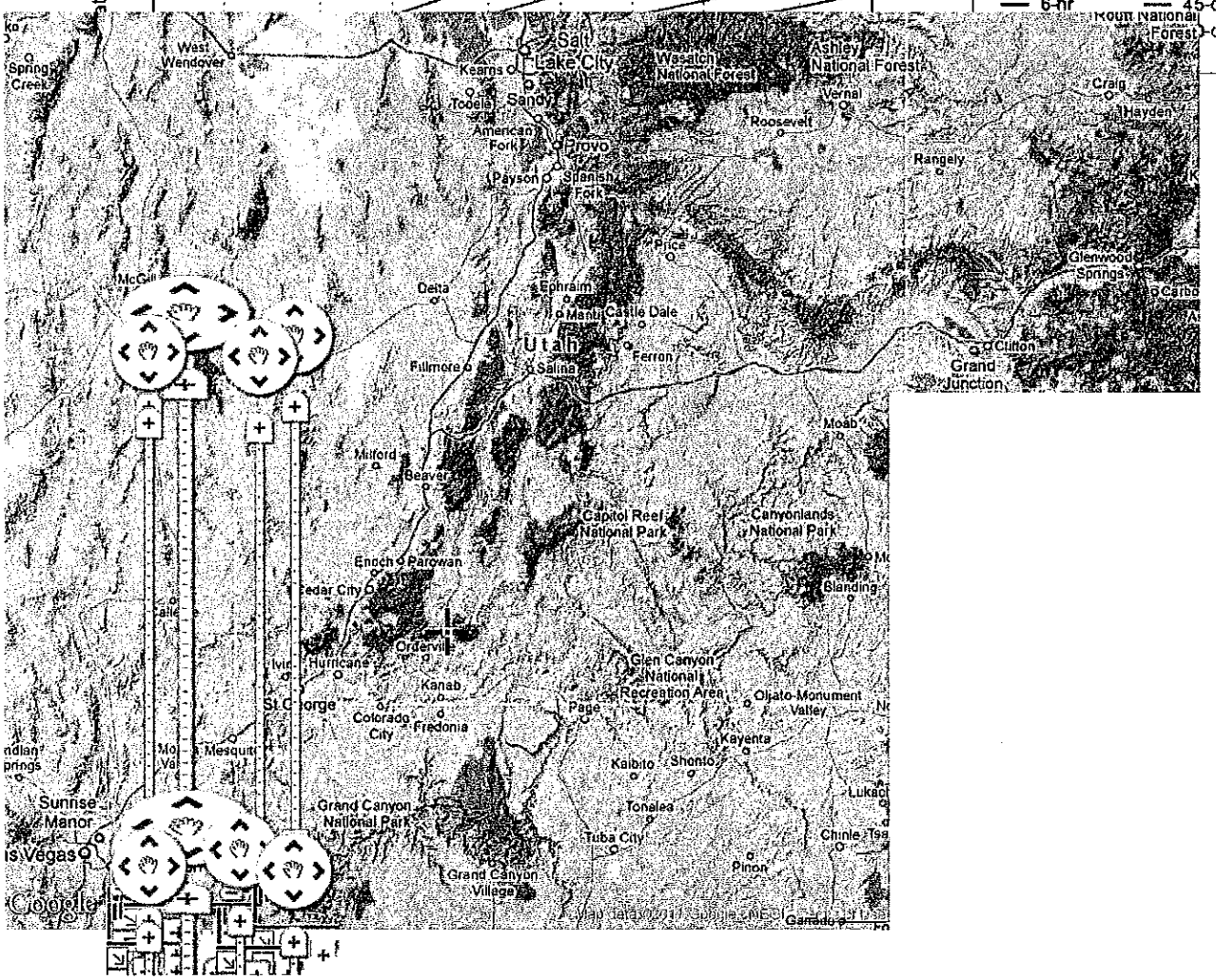
Salt Lake City
West Wendover
Kearns
Tooele
Sandy
American Fork
Provo
Payson
Spanish Fork
Wasatch National Forest
Ashley National Forest
Vernal
Roosevelt
Craig
Hayden
Rangely
Price
Glenwood Springs
Delta
Ephraim
Manti
Castle Dale
Utah
Ferron
Fillmore
Salina
Clifton
Grand Junction
Moab
Milford
Beaver
Capitol Reef National Park
Canyonlands National Park
Enoch
Parowan
Cedar City
Orderville
Hurricane
Kanab
St George
Colorado City
Fredonia
Page
Glen Canyon National Recreation Area
Oljato-Monument Valley
Kayenta
Kaibito
Shonto
Mesquite
Sunrise Manor
Grand Canyon National Park
Tonalea
Tuba City
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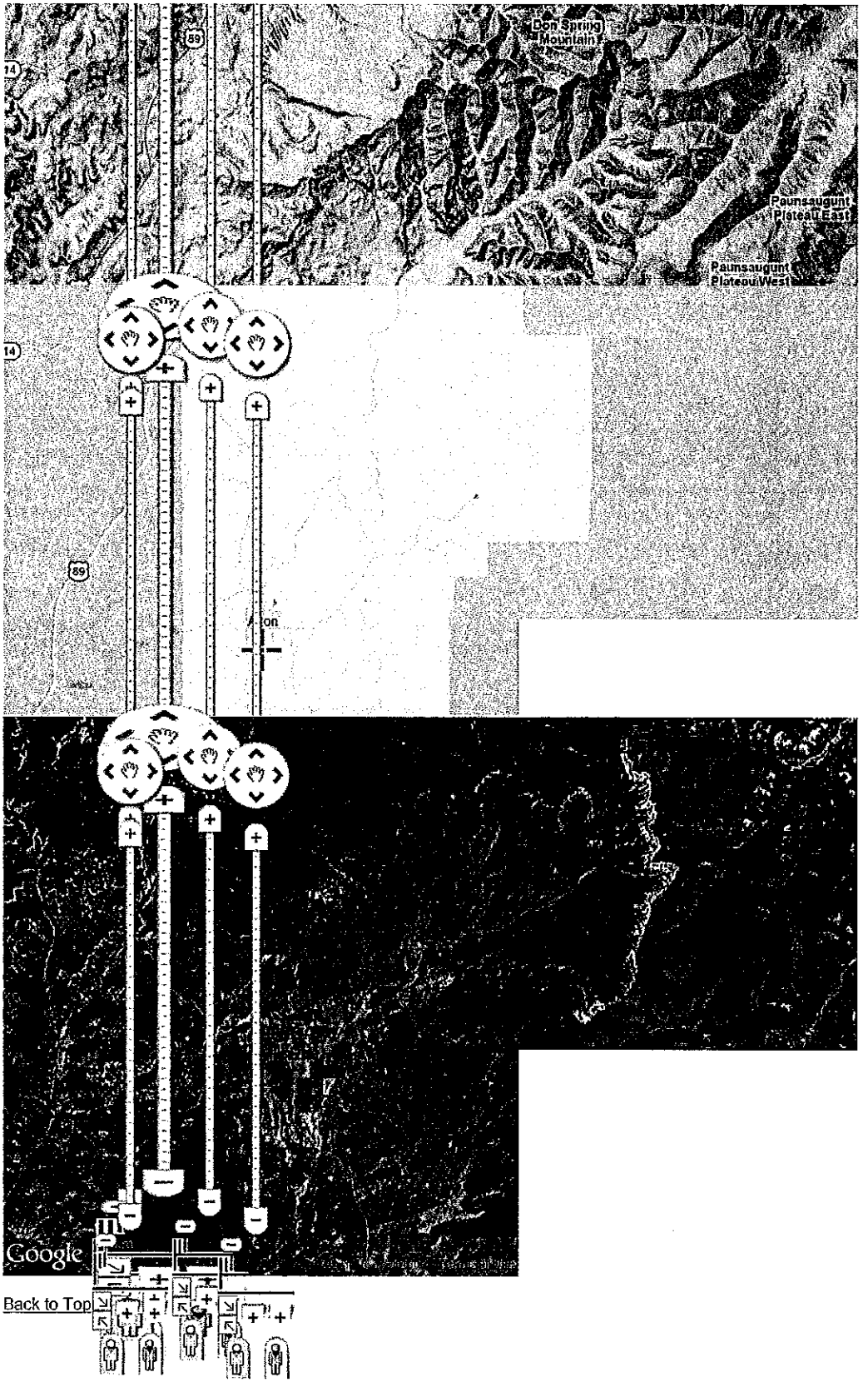

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