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◆ **The Council Reporter** ◆

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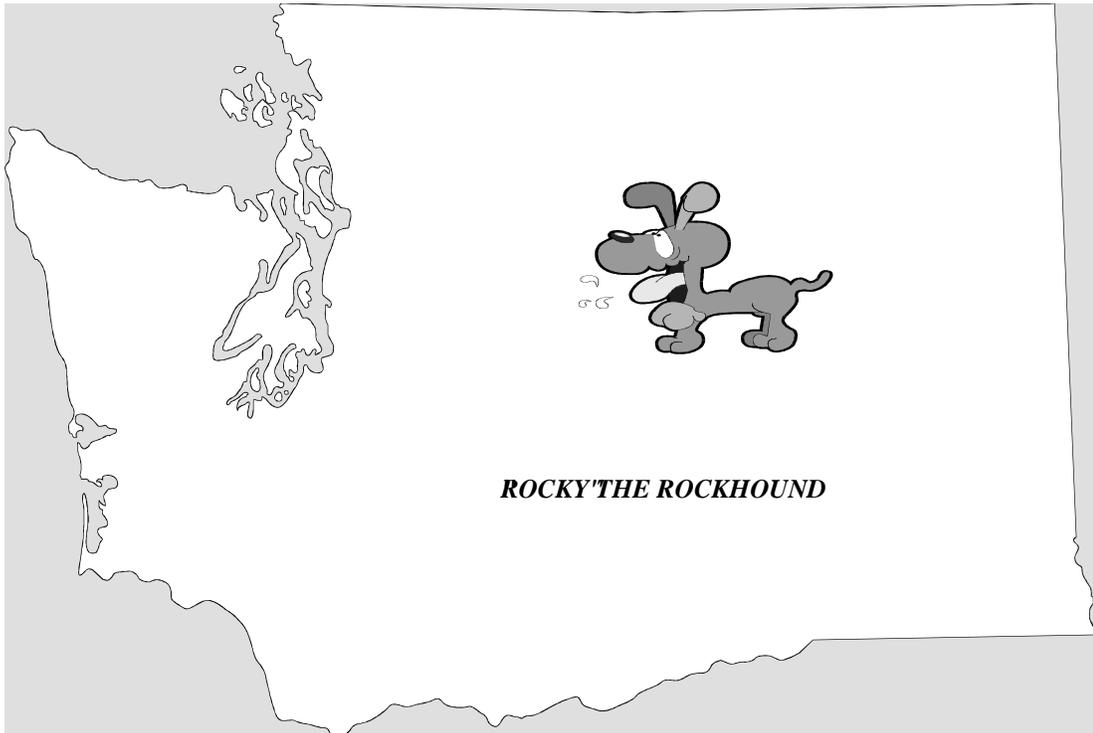
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**Official Publication of the  
Washington State Mineral Council**

**WASHINGTON STATE MINERAL COUNCIL  
2013 OFFICERS**

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Wagonmaster	open		

**The West Side Board meets the third Tuesday of each month between Quarterly meetings, unless a meeting is specially called. Usually no meeting in July and December dependent on Board action.**

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# Westside Board Meeting Minutes 06/18/13

The June 18, 2013 Westside meeting was called to order by Brad Johnson at 7:35 p.m at the Maplewood Club House. The treasurer report was given and there was discussion of Bob Pattie's bill for newsletter expenses. Upon motion by Stu Earnst, seconded by Glenn Morita, establishment of a \$200 petty cast for Bob Pattie was approved.

There was discussion of meeting dates and the fact that the next scheduled meeting won't be until September. Field trips for 2014 are to be completed at the November full board meeting.

Bob Pattie discussed the progress or lack thereof of meetings with DNR. He would like Stu to replace Brian Waters at these meetings. He will try for a meeting during the week in mid-July.

The gate at Walker Valley is going to be moved to the road into the pit. DNR should notify Stu Earnst when this is done. Mineral Council lock will remain on the gate so we will have access to the quarry. DNR would like only rock club members to have the combination to the lock. We need to have a list of the weekends that the ATV people plan gatherings. These happen 3 or 4 times a year and pit is full of trucks, trailers, bikes, etc.

Glenn Morita was notified that the stilpnomelane on Blanchard Mountain had been totally mined out. Stu Earnst went up there Sunday and there were a lot of chips and the seams were intact but will take a lot of work to remove overburden to collect sizeable pieces.

Brad Johnson discussed the need for accurate GPS coordinates for all the collecting locations. He said there was a need for all new maps. There should be a page in the map books listing member clubs and their contact information. Also a page acknowledging Bob Pattie, Stu Earnst, Ed Lehman and Glenn Morita for years of work on behalf of the WSMC. He suggested appointing a committee at the next full board meeting in Ellensburg. Ed Lehman said he wished that the maps were offered on DVDs; they would only cost \$0.25 each to produce rather than what printing costs. Bob Pattie said they should be professionally coated to protect the disc and they would last longer.

Field trips were discussed. June 22 – 9 a.m. at the Big Lake Store to go to Pilchuck and Bear Creek for jade, rhodonite, grossular. July 20 – 11 a.m. at Darrington Rock Show to go to Gold Mountain for travertine. July 27 – 9 a.m. at Cole's Corner to go to Lake Wenatchee area for garnets.

## September 21, 2013 Combined Board Meeting AGENDA

Pres. Opening of Meeting  
Treasurer's Report  
◇ Kathy Earnst  
Committee Reports  
◇ Wagonmaster  
Old Business  
New Business  
Open Comments  
Adjourn

### Tentative Meeting Calendar for 2013

West side board meetings:  
1/15, 2/19, 4/16, 6/18, 10/15

At 7:30PM at the  
Maplewood Clubhouse  
8802 196th St SW, Edmonds

General meetings :  
3/30, 5/4, 9/21, 11/2

All general meetings will be held at:

Palace Café  
4th & Main  
Ellensburg  
Meeting @ 9:30 AM

Ed Lehman stated that he is concerned about the direction the WSMC is taking. He is concerned that an officer is alienating clubs by being too forceful. Ed Lehman explained that he goes to shows to sell map books at his own expense and he requests that the club allow him to sell self-collected items. If they do not allow this, he doesn't attend the show on behalf of the WSMC. Brad Johnson stated that he feels that Ed is doing a great job. Bob Pattie and Stu Earnst discussed the problems with being a club member when there are differences of opinion and being an officer of a statewide organization at the same time. The officer needs to step back and not take part in the opinions.

There being no further business, the meeting was adjourned.

Submitted by Kathy Earnst, Secretary Pro-Tem

### JUNE BIRTHSTONE

Following are excerpts from an article at [www.earthsky.org](http://www.earthsky.org)

(Continued on page 4)

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June has three traditional birthstones – pearl, moonstone, and alexandrite. Pearl - Unlike most gemstones that are found within the Earth, pearls have an organic origin. They are created inside the shells of certain species of oysters and clams. Some pearls are found naturally in mollusks that inhabit the sea or freshwater settings such as rivers. However, many pearls today are cultured- raised in oyster farms that sustain a thriving pearl industry. Pearls are made mostly of aragonite, a relatively soft carbonate mineral (CaCO<sub>3</sub>) that also makes up the shells of mollusks.



A pearl is created when a very small fragment of rock, a sand grain, or a parasite enters the mollusk's shell. It irritates the oyster or clam, who responds by coating the foreign material with layer upon layer of shell material. Pearls formed on the inside of the shell are usually irregular in shape and have little commercial value. However, those formed within the tissue of the mollusk are either spherical or pear-shaped, and are highly sought out for jewelry.

Pearls possess a uniquely delicate translucence and luster that place them among the most highly valued of gemstones. The color of the pearl depends very much on the species of mollusk that produced it, and its environment. White is perhaps the best-known and most common color. However, pearls also come in delicate shades of black, cream, gray, blue, yellow, lavender, green, and mauve. Black pearls can be found in the Gulf of Mexico and waters off some islands in the Pacific Ocean. The Persian Gulf and Sri Lanka are well-known for exquisite cream-colored pearls called Orientals. Other localities for natural seawater pearls include the waters off the Celebes in Indonesia, the Gulf of California, and the Pacific coast of Mexico. The Mississippi River and forest streams of Bavaria, Germany, contain pearl-producing freshwater mussels.

The largest pearl in the world is believed to be about three inches long and two inches across, weighing one-third of a pound. Called the Pearl of Asia, it was a gift from Shah Jahan of India to his favorite wife, Mumtaz, for whom he also built the Taj Mahal.

Pearls, according to South Asian mythology, were dewdrops from heaven that fell into the sea. They were caught by shellfish under the first rays of the rising sun, during a period of full

moon. In India, warriors encrusted their swords with pearls to symbolize the tears and sorrow that a sword brings.

Pearls were also widely used as medicine in Europe until the 17th century. Arabs and Persians believed it was a cure for various kinds of diseases, including insanity. Pearls have also been used as medicine as early as 2000 BC in China, where they were believed to represent wealth, power and longevity. Even to this day, lowest-grade pearls are ground for use as medicine in Asia.

Moonstone - June's second birthstone is the moonstone. Moonstones are believed to be named for the bluish white spots within them, that when held up to light project a silvery play of color very much like moonlight. When the stone is moved back and forth, the brilliant silvery rays appear to move about, like moonbeams playing over water.

This gemstone belongs to the family of minerals called feldspars, an important group of silicate minerals commonly formed in rocks. About half the Earth's crust is composed of feldspar.



This mineral occurs in many igneous and metamorphic rocks, and also constitutes a large percentage of soils and marine clays.

Rare geologic conditions produce gem varieties of feldspar such as moonstone, labradorite, amazonite, and sunstone. They appear as large clean mineral grains, found in pegmatites (coarse-grained igneous rock) and ancient deep crustal rocks. Feldspars of gem quality are aluminosilicates (minerals containing aluminum, silicon and oxygen), that are mixed with sodium and potassium. The best moonstones are from Sri Lanka. They are also found in the Alps, Madagascar, Myanmar (Burma), and India.

The ancient Roman natural historian, Pliny, said that the moonstone changed in appearance with the phases of the moon, a belief that persisted until the sixteenth century. The ancient Romans also believed that the image of Diana, goddess of the moon, was enclosed within the stone. Moonstones were believed to have the power to bring victory, health, and wisdom to those who wore it. In India, the moonstone is considered a sacred stone and often displayed on a yellow cloth – yellow

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being considered a sacred color. The stone is believed to bring good fortune, brought on by a spirit that lives within the stone.

Alexandrite - June's third birthstone is the alexandrite. Alexandrite possesses an enchanting chameleon-like personality. In daylight, it appears as a beautiful green, sometimes with a bluish cast or a brownish tint. However, under artificial lighting, the stone turns reddish-violet or violet. Alexandrite belongs to the chrysoberyl family, a mineral called beryllium aluminum oxide in chemistry jargon, that contains the elements beryllium, aluminum and oxygen ( $\text{BeAl}_2\text{O}_4$ ). It is a hard mineral, only surpassed in hardness by diamonds and corundum (sapphires and rubies). The unusual colors in alexandrite are attributed to the presence of chromium in the mineral. Chrysoberyl is found to crystallize in pegmatites (very coarse-grained igneous rock, crystallized from magma) rich in beryllium. They are also found in alluvial deposits – weathered pegmatites, containing the gemstones, that are carried by rivers and streams.

Alexandrite is an uncommon stone, and therefore very expensive. Sri Lanka is the main source of alexandrite today, and the stones have also been found in Brazil, Madagascar, Zimbabwe, Tanzania, and Myanmar (Burma). Synthetic alexandrite, resembling a reddish-hued amethyst with a tinge of green, has been manufactured but the color change seen from natural to artificial lighting cannot be reproduced. Such stones have met with only marginal market success in the United States.



The stone is named after Prince Alexander of Russia, who was to become Czar Alexander II in 1855. Discovered in 1839 on the prince's birthday, alexandrite was found in an emerald mine in the Ural Mountains of Russia.

Because it is a relatively recent discovery, there has been little time for myth and superstition to build around this unusual stone. In Russia, the stone was also popular because it reflected the Russian national colors, green and red, and was believed to bring good luck.

Image Credits: Pearl from Wikimedia Commons, moonstone from [www.moonstones.com](http://www.moonstones.com), alexandrite from [www.palagems.com](http://www.palagems.com).

Article excerpted from [www.earthsky.org](http://www.earthsky.org). Visit the web site for more fascinating information.

From Petrified Digest 06/13

## How Do We Know What's Beneath Earth's Surface?

by Douglas Bland, New Mexico Bureau of Geology & Mineral Resources

We can't drill down to the center of Earth, or even beyond the thin crust to investigate the mantle below. So, we must use indirect methods to figure out the structure, composition, and variations in the crust and upper mantle. These five investigative tools help scientists figure out what lies beneath the surface of Earth.

Seismic Reflection and Seismic Refraction are two seismic techniques that measure the travel time of waves of seismic energy generated from shots (such as explosions, vibrations, or weight drop) on Earth's surface. The waves travel through the subsurface, and then back to arrays of highly sensitive ground motion detectors (geophones) on the surface. In the subsurface, the seismic waves encounter interfaces between materials with different seismic velocities, often created by geologic materials or rock layers of different densities. A portion of each seismic ray that strikes a density interface is refracted (bent) into the underlying layer or along the interface, and the remainder is reflected (bounces) directly back to the surface. The geophones measure differences in the travel times of the seismic rays caused by the interfaces, which are then developed into two-dimensional or three-dimensional images showing underground structures and layers. Seismic refraction surveys are much less costly, but reflection surveys generally have better resolution and are more effective for deeper targets. Both are limited to the upper crust of Earth.

Seismic Tomography is an imaging technique that uses seismic waves generated by earthquakes to create computer generated, three-dimensional images of Earth's interior, including deep into the mantle. Man-made explosions in boreholes can be used for more localized investigations. Scientists compile digital earthquake records from hundreds of seismometers all over the world to calculate the average speed of different types of seismic waves. Then, they map out regions where the waves traveled slower or faster than average. Waves travel faster through cold, stiff materials, like a tectonic plate subducting into the mantle, and slower through warmer materials, like hot molten rock rising toward the surface.

Gravity Surveys use instruments that contain a tiny mass attached to a sensitive spring to measure slight differences in the strength of Earth's gravitational field. This field is affected by the density of subsurface rocks, among other factors. Different rock types have different densities. For example, igneous rocks in general are more dense than sedimentary rocks, so the tiny mass in the instrument will be pulled downward more strongly above a buried igneous rock compared to a buried sedimentary rock. Measurements are taken in grid patterns, which are transformed into maps showing density variations. These are used to model images of the subsur-

(Continued on page 6)

**TENTATIVE LIST OF WSMC FIELD TRIPS FOR 2013**

The WSMC sponsors field trips through various rock clubs in the state. These trips offer the general public as well as the experienced rockhound the opportunity to collect a wide variety of materials from agate and jasper to crystals and fossils. Experienced guides familiar with the sites are on-hand to help find good quality material. Check with the local clubs in your area for further information. **AREAS CURRENTLY CLOSED TO COLLECTING: LUCAS CREEK, ADNA, DIATOM PITS (FRENCHMAN HILLS).** No motorized vehicles allowed: Green Mountain (Kalama) and First Creek.

Check out the trip info, and tool listings at: [mineralcouncil.org](http://mineralcouncil.org).

Updated: January 17, 2013

<u>Date</u>	<u>Host</u>	<u>Site</u>	<u>Meet @</u>	<u>Material</u>	<u>Tools</u>
01/26/13	Msvl	Cedar Ponds	9:00 @ Monroe Jack n Box	Jasper	Dig & light hard rock tools
2/16/13	Msvl	Beaver Valley	10:30 @ info Ctr B. V. Rd	Chert, Zeolites	Light hard rock tools
3/23	Msvl	Saddle Mt	9:00 @ Leprecon market Matawa, WA	Petrified Wood, Opal	Dig tools
4/13	Msvl	Racehorse Creek	9:00 IGA @ Nugents Corner	Fossil leaves, mushrooms	Lt hard rock
4/20,21	Pow	Saddle Mt	8:00 @ launch S. of Matawa	Petrified Wood	Light hard rock tools
5/18	Everett	Walker Valley	9:00 @Big Lk Store	Geodes	Hard rock tools (lots of energy)
			Contact: Brad Johnson (1st VP WSMC) - <a href="mailto:cavemanrocks@yahoo.com">cavemanrocks@yahoo.com</a>		
6/22	Msvl	Not decided, maybe Mt Higgins or Pilchuck Ck		Rhodonite, Jade, Grossular Garnet	
6/26-30	Pow	Madras	8:00 @ Jefferson Fair, Madras OR	Agate, Jasper, Petrified Wood, T-Eggs	Private farms
07/13-14	Spokane	Lolo Pass	9:00 @ Lolo Pass Resort Parking Lot	Smokey quartz crystals	Shovel. pick
			Contact: Mike Shaw (509)244-8542 (509)251-1574		
7/ 20	Msvl	Gold Mt	11:00 @ Show (20,21)Darrington behind IGA	Travertine	Lt hard rock
7/27	Msvl	Lake Wenatchee	9:00 @ Coles Corner	Garnets	Shovel, bucket, 1/4" screen, wading
08/3	Spokane	Chewelah mines	9:00 @ Chewelah Safeway	Magnesite	Rock hammer, light digging
			Contact: Mike Shaw (509)244-8542 (509)251-1574		
8/17	NW Opal	Greenwater	9:00 @ Ranger St, Enumclaw	Agate, Jasper	Dig, Lt & hard rock tools
			Contact: Tony Johnson or Ed Lehman		
9/7,8	Pow	Red Top	8:00 @Teaway R Camp	Agate, Jasper, Geodes, Jade	Dig, Lt hard rock
9/14	NW Opal	Little Naches	9:00 @ 410 &FR 19	ThunderEggs	Dig & Light hard rock tools
			Contact: Tony Johnson or Ed Lehman		
10/19	Msvl	Money Creek	9:00 @ Camp Ground	Pic Jasper, Ore	Light hard rock tools
11/16	Msvl	Blanchard Hill	9:00 @ I-5 240 exit gas station	Stilpnomelane	Hard rock tools

(\* Deposit must be received no later than 30 days before trip date to reserve spot; deposit fully refundable.) Participants must be age 16 or older; no children or pets, please; maximum of 40 participants so get your reservations in early!)

**ALWAYS CALL TO CONFIRM TRIP DATES AND DETAILS!!— SEE BELOW**

<u>Abbreviation</u>	<u>Host</u>	<u>Contact</u>	<u>E-mail</u>
<b>Evt</b>	Everett Rock & Gem Club	Brad Johnson (206) 403-3073	cavemanrocks@yahoo.com
<b>LkSd</b>	Lakeside Gem & Min Club	Andy Johnson (509) 546-1950	cbagates@hotmail.com
<b>Msvl</b>	Marysville Rock Club	Ed Lehman (425) 334-6282	wsmced@hotmail.com
<b>Msvl-Wasco trip</b>		Stu & Kathy Earnst (360) 856-0588 27871 Minkler Rd, Sedro Woolley, WA 98284	earnstkk@comcast.net
<b>MtBk</b>	Mt Baker Rock Club	Kris Menger (360) 927-0994	kmenger@comcast.net
<b>Nw Op</b>	NW Opal Association	Tony Johnson (253) 863-9238	ynotbandit@earthlink.net
<b>Pow-Wow</b>	All Rockhounds Club	<a href="http://www.allrockhoundspowwowclubofamerica.com/">http://www.allrockhoundspowwowclubofamerica.com/</a>	
<b>Spkn</b>	Rock Rollers of Spokane	Mike Shaw (509) 251-1574	mikeshawmoose@yahoo.com
<b>WSea</b>	West Seattle Rock & Gem Club		
<b>Yak</b>	Yakima Rock & Min Club	Jerry Wichstrom (509) 653-2787	jewtmew@aol.com

**Trips are open to all. Most 2 day trips include Sat potluck, Sun free breakfast, tailgating, swap, and horse shoes. Small fee required for Pow Wow and Madras trips. FOR MORE INFORMATION contact Ed Lehman at [wsmced@hotmail.com](mailto:wsmced@hotmail.com) or (425) 334-6282. Or see [mineralcouncil.org](http://mineralcouncil.org)**

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face geometry of different rock bodies, including location, size, and rock type.

Aeromagnetic Surveys use a magnetometer aboard or towed behind an aircraft to measure minute differences of Earth's magnetic field. These differences are caused in part by differing concentrations of magnetic minerals in Earth's crust, most commonly the iron mineral magnetite. Because rock types differ in their content of magnetic minerals, magnetic maps can be created that allow visualization of the geologic structure of the upper crust in the subsurface, par-

ticularly the geometry of igneous intrusions or ore bodies, and the presence of faults and folds.

From CMS Tumbler, 06/13, via The Quarry, 12/12; from The Tri-lobite, 9/12

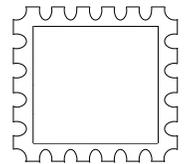
## Local Area Shows for 2013

July 2013 4th 9am—5pm 5th 9am—5pm 6th 9am—5pm 7th 9am—4pm	Sisters, Oregon	Annual Show	Sisters Elementary School 611 E. Cascade (off Hwy. 20) Sisters, OR
July 2013 19th 10am—5pm 20th 10am—5pm 21st 10am—4pm	Lower Umpqua Gem & Lapidary Society	Annual Show	Reedsport Community Center 451 Winchester Ave. Reedsport, OR
July 2013 20th 10am—6pm 21st 10am—5pm	Darrington Rock and Gem Club	Annual show	Grange Hall 1265 Railroad Ave. Darrington, WA
August 2013 2nd 10am—5pm 3rd 10am—5pm 4th 10am—4pm	Far West Lapidary & Gem Society	Annual show	North Bend Community Center 2222 Broadway North Bend, OR
August 2013 9th 10am—5pm 10th 10am—5pm 11th 10am—5pm	Butte Mineral and Gem Club	Mineral and Gem show	Butte Civic Center Annex 1340 Harrison Ave. exit 127 North Butte, MT
August 2013 9th 10am—9pm 10th 10am—9pm 11th 10am—6pm	Port Townsend Rock Club	Annual show	Jefferson County Fairgrounds 4907 Landes St. Port Townsend, WA
August 2013 10th 9am—5pm 11th 10am—5pm	Maplewood Rock And Gem Club	7th Annual Rock and Mineral Sale	Maplewood clubhouse 8802 196th St SW Edmonds, WA
August 2013 16th 10am—6pm 17th 10am—4pm		17th Annual Seaside Gem & Mineral Show	Seaside Convention Center 415 1st Ave Seaside, OR
August 2013 17th 9am—5pm	Shelton Rock and Mineral Club	4th Annual Tailgate Sale and Swap	Shelton Soccer Park 2102 E. Johns Prairie RD Shelton, WA
September 2013 7th 10am—6pm 8th 10am—4pm	Umpqua Gem Club	43rd annual show	Douglas County Fairgrounds 2110 Frear St. Roseburg, OR
September 2013 14th 10am—5pm 15th 10am—5pm	Marcus Whitman Gem And Mineral Society	Annual show	Walla Walla County Fairgrounds Community Center 9th St. and Orchard Walla Walla, WA
September 2013 21st 1am—6pm 22nd 10am—4pm	Southern Washington Mineralogical Society	48th Annual show	Castle Rock Fairgrounds A St. and Cowlitz River Castle Rock, WA
September 2013 21st 9am—6pm 22nd 10am—5pm	Hellgate Mineral Society	19th annual show	Hilton Garden Inn 3720 North Reserve Street Missoula, MT
October 2013 5th 9am—5pm 6th 9am—4pm		Springfield Thunderegg Show	Guy Lee Elementary School 755 Harlow Rd Springfield, OR
October 2013 12h 10am - 5pm 13th 10am—5pm	Marysville Rock and Gem Club	39th annual show	Totem Middle School Cafeteria 7th St. and State Ave Marysville, WA
October 2013 26th 10am - 5pm 27th 10am—5pm	Bellevue Rock and Gem Show		Vasa Park 3560 West Lake Sammamish Blvd. SE Bellevue, Washington 98008

Combined Board Meeting  
September 21, 2013  
9:30 AM

Palace Café  
4th & Main  
Ellensburg

COUNCIL REPORTER, Monthly publication of The  
Washington State Mineral Council



WASHINGTON STATE MINERAL COUNCIL  
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